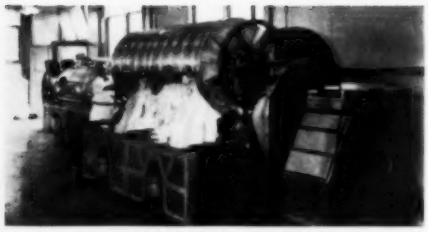
Canadian Hospital

June, 1960



At the touch of a button, washed work tumbles automatically from Cascade Unloading Washers, equipped with Full-Automatic Controls, into waiting containers of Notrux Extractor, at Brantford (Ont.) General Hospital. At far left, Cascade Washer handles special classifications of work.

At St. Joseph's Hospital, Brantford, Ontario, this unit of pushbutton-operated Presses quickly machine-finishes uniforms and other hospital garments. Left background, Zone-Air Tumbler dries 300 lbs. per hour of work not to be ironed.

At Oshawa General Hospital, Oshawa, Ontario, linens are beautifully ironed on 6-Roll Super-Sylon Flatwork Ironer, and automatically folded directly from ironer by Trumatic Folder. Automatic equipment helps maintain high-production schedule in laundry department.

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References: 1. Sollmann, T.: A Manual of Pharmacology, 8th Ed., W. B. Saunders Company, Philadelphia, 1957, p. 1004. 2. Hill, F.: Practical Fluid Therapy in Pediatrics, W. B. Saunders Company, Philadelphia, 1954, p. 104. 3. Harper, J. Y. and Pomerat, C. M.: In Vitro Observations on Behavior of Conjunctival and Corneal Cells in Relation to Electrolytes, American Journal of Ophthalmology 46:269-275, 1958. 4. Pomerat, C. M., and Overman, R. R.: Electrolytes and Plasma Expanders, I. Reaction of Human Cells in Perfusion Chambers With Phase Contrast Time-Lapse Cine Records, Zeitschrift fur Zellforschung, Bd. 463 2-17, 1956. 5. Hild, W.: Ependymal Cells in Tissue Culture, Zeitschrift fur Zellforschung, Bd. 468 259-271, 1957. 6. Rice, C. O.: Personal Communication. 7. DeWeese, M. S., and Hodgson, P. E.: Personal Communication. 8. Shambaugh, G. E. Jr.: Technical Problems in Surgical Treatment of Otosclerosis, J. Internat. Coll. Surgeons 25:772-776 (June) 1956.

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Canadian Hospital

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Contents

June, 1960, Volume 37, No. 6

Cover picture—Scarborough General Hospital, Scarborough, Ont.

(For Subscription Rates See Page 98)

Business Manager: Charles A. Edwards
Advertising Manager: Thomas L. Wells
Advertising Offices: 25 Imperial Street
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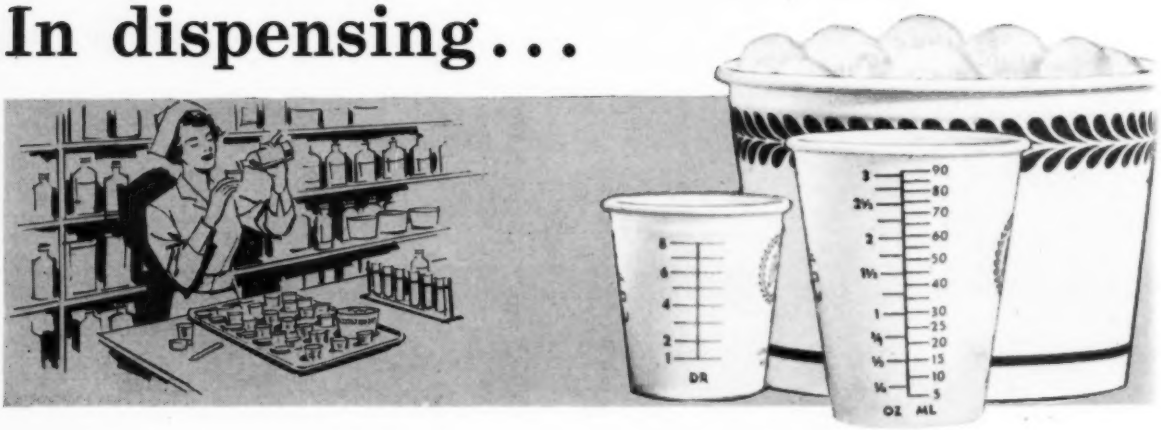
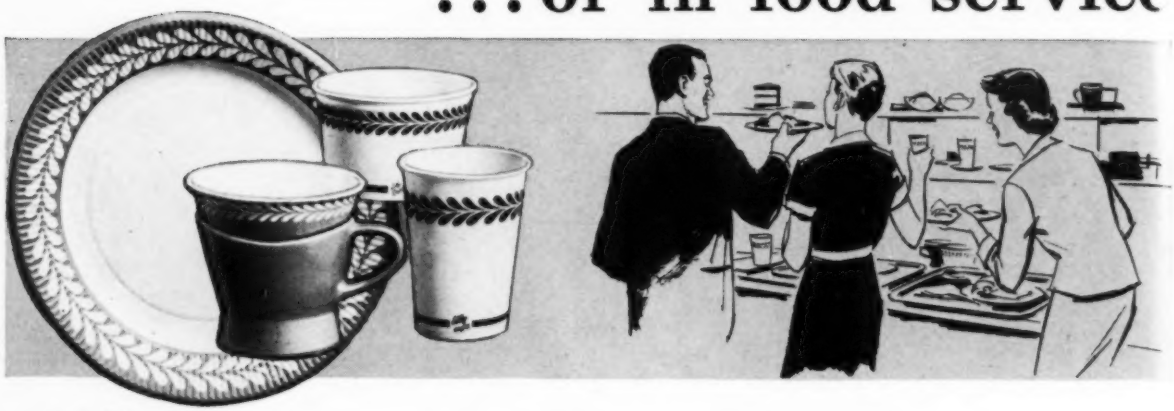


...or in food service



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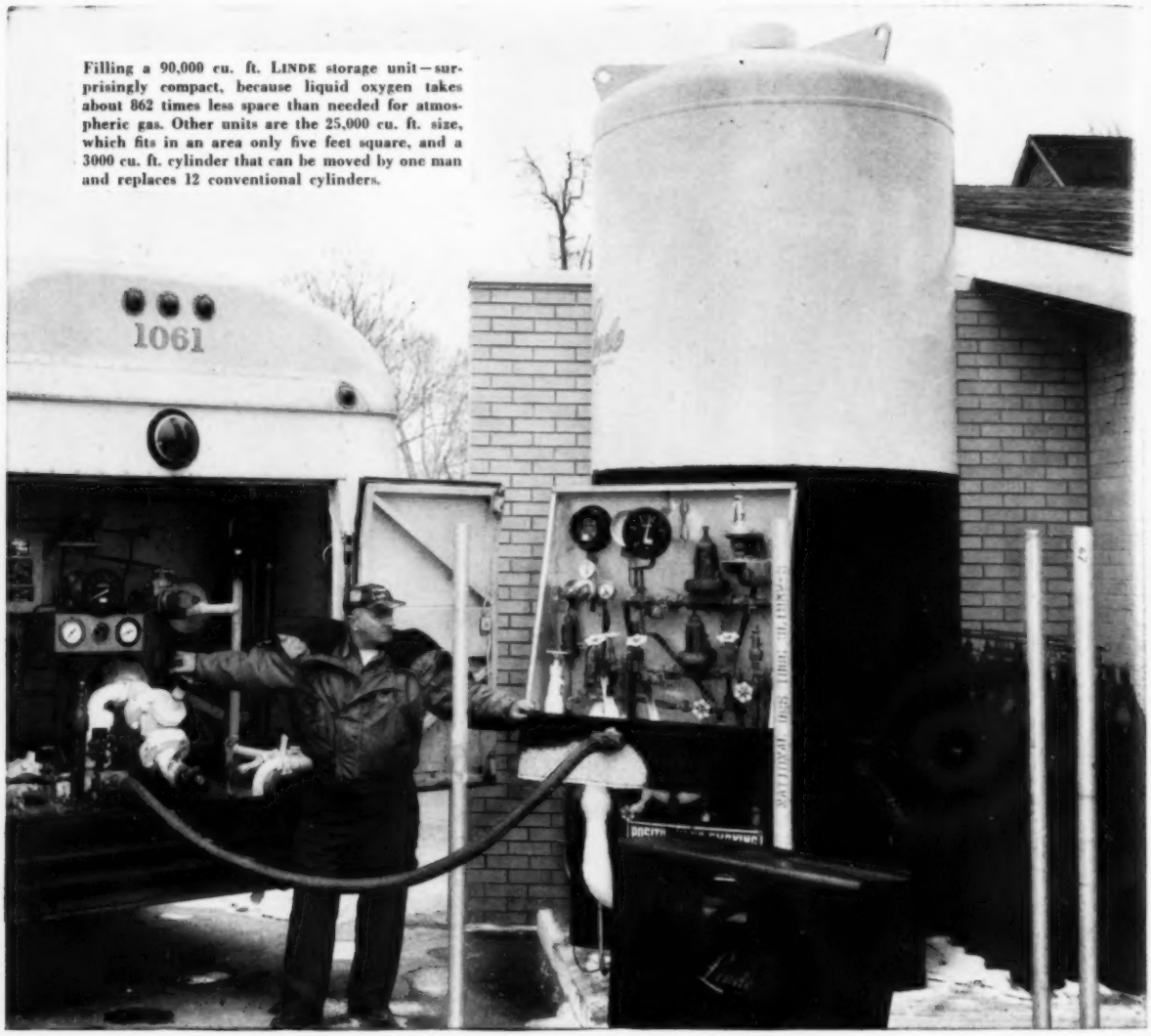

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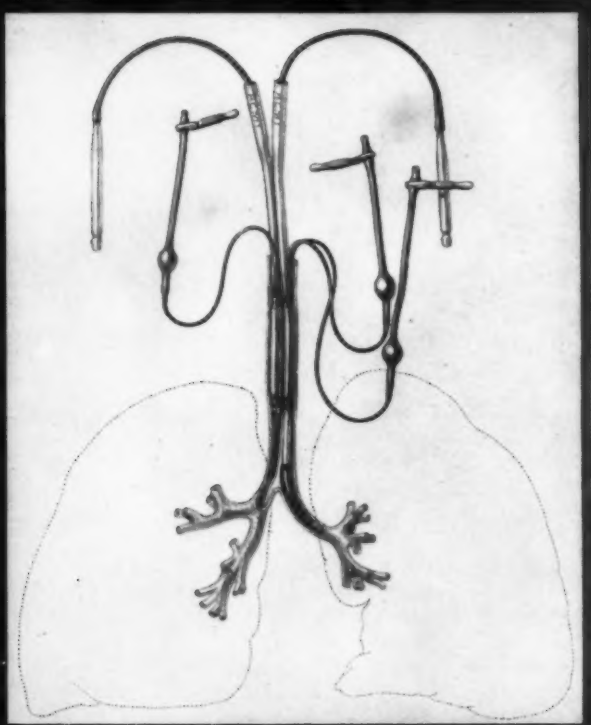

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Notes About People

Geriatrician Appointed

Dr. Borys Kobrynski, has been appointed geriatrician with the Housing and Nursing Homes Branch, Department of Social Welfare and Rehabilitation in Saskatchewan. Dr. Kobrynski comes to the department from the Department of Public Health where he supervised the treatment and control of tuberculosis in the provincial mental institutions. He was also consultant in internal medicine for the Saskatchewan Training School, Moose Jaw.

Among his duties Dr. Kobrynski will evaluate present and continuing medical coverage within each of the four provincial geriatric centres. He will carry out extensive study of the condition of patients now resident and those admitted to evaluate their response to prescribed treatment. He will make a study related to younger persons now being admitted to geriatric centres and study the possibility of the application of the latest advances in this field to the geriatric centres.

Dr. Edmond Dubé

Dr. Edmond Dubé, medical director at l'Hôpital Ste-Justine, Montreal, died in March. He was dean of the Faculty of Medicine at Laval University, Montreal, from 1944 to 1950. In addition Dr. Dubé was professor emeritus of paediatric surgery at the university and chief of paediatric surgery at l'Hôpital Ste-Justine from 1933 onwards. The deceased was also president of the Royal College of Physicians and Surgeons, from 1951 to 1953.

Dr. Wilder Penfield Retires

Dr. Wilder Penfield recently announced his retirement at the annual meeting of the Montreal Neurological Institute of McGill University. Dr. Penfield served as director of the institute and chairman of the department of neurology and neurosurgery at the university. His successor at the institute is Dr. Theodore Rasmussen. Dr. Penfield has been awarded a Guggenheim Foundation fellowship in medical education.

Dr. Penfield's pioneer work in brain surgery and research of the nervous system has won him many decorations and 14 honorary degrees. In 1953 he was made a member of the Order of Merit, the sovereign's highest honour for service to humanity.

New Nursing Appointment

Kathleen Ruane, director of nursing service at University Hospital Saskatoon since 1954, has recently been appointed co-ordinator of the new extension course in nursing unit administration by a joint committee of the Canadian Nurses' Association and the Canadian Hospital Association. She will assume her duties July 1, 1960, while the course itself becomes operable in September, 1961.

Miss Ruane has been an active leader in the field of nursing in Canada and has given outstanding service to University Hospital and the Saskatchewan Registered Nurses' Association. She has also been a member of the executive of the Canadian Nurses' Association. Previous to her appointment in Saskatoon she was for nine years superintendent of nurses at the Children's Hospital, Winnipeg, Manitoba.

New Director of Nursing at Saskatoon

Betty Sellers has been appointed Director of Nursing Service at University Hospital, Saskatoon, Sask. She replaces former director, Kathleen Ruane, and will assume duties on June 15. Miss Sellers is a graduate of the Regina General Hospital School of Nursing. She was associated with University Hospital as supervisor of the Central Supply Service, operating room supervisor and Assistant Director of Nursing Service until 1959 when she returned to the University of Saskatchewan to complete studies for a Bachelor of Science degree in Nursing.

Eric Francis Routley

The officers and directors of the Canadian Hospital Association wish to express to Dr. Clarence T. and Mrs. Routley deep sympathy in the sudden death of their son Eric Francis. Dr. E. F. Routley died at the age of 40 in Long Beach, California, where he was a practising surgeon.

Appointment in Winnipeg

Dr. Leslie H. Truelove has been appointed chief of staff of Winnipeg's new rehabilitation hospital. He will also be the director of the school of physiotherapy and occupational therapy which will be established by the University of Manitoba in September. The school will offer a two-year course leading to a diploma. Since 1958 Dr. Truelove has been a clinical research fellow in the rheumatic unit of the Northern General Hospital, Edinburgh.

Appointments at the Montreal General

The Montreal General Hospital has announced the promotion of Dr. E. F. Crutchlow from senior associate radiologist to the newly established post of senior radiologist, and of Dr. T. E. Dancey from associate psychiatrist to the newly created post of senior psychiatrist.

Red Cross Honour

George Aitken, of Winnipeg, Manitoba, was last month awarded the medal of honorary counsellor, highest honour bestowed within the Canadian Red Cross Society. He received the medal in recognition of local and international service in Red Cross activities.

- Dorothy Curzon has been appointed comptroller, a newly created position, at Belleville General Hospital, Belleville, Ontario.

- Dr. Finlay McKerracher has been appointed hospital administrative consultant on the staff of the hospital services commission of New Brunswick. He was previously assistant superintendent of the General Hospital at St. John's, Newfoundland.

- Bill Patterson, maintenance foreman at the Calgary General Hospital, Calgary, Alberta, has retired after having completed forty-one years of service with the hospital. Starting as fireman after returning from overseas, he later became engineer. He has held his present position for the past ten years.

(Continued on page 18)

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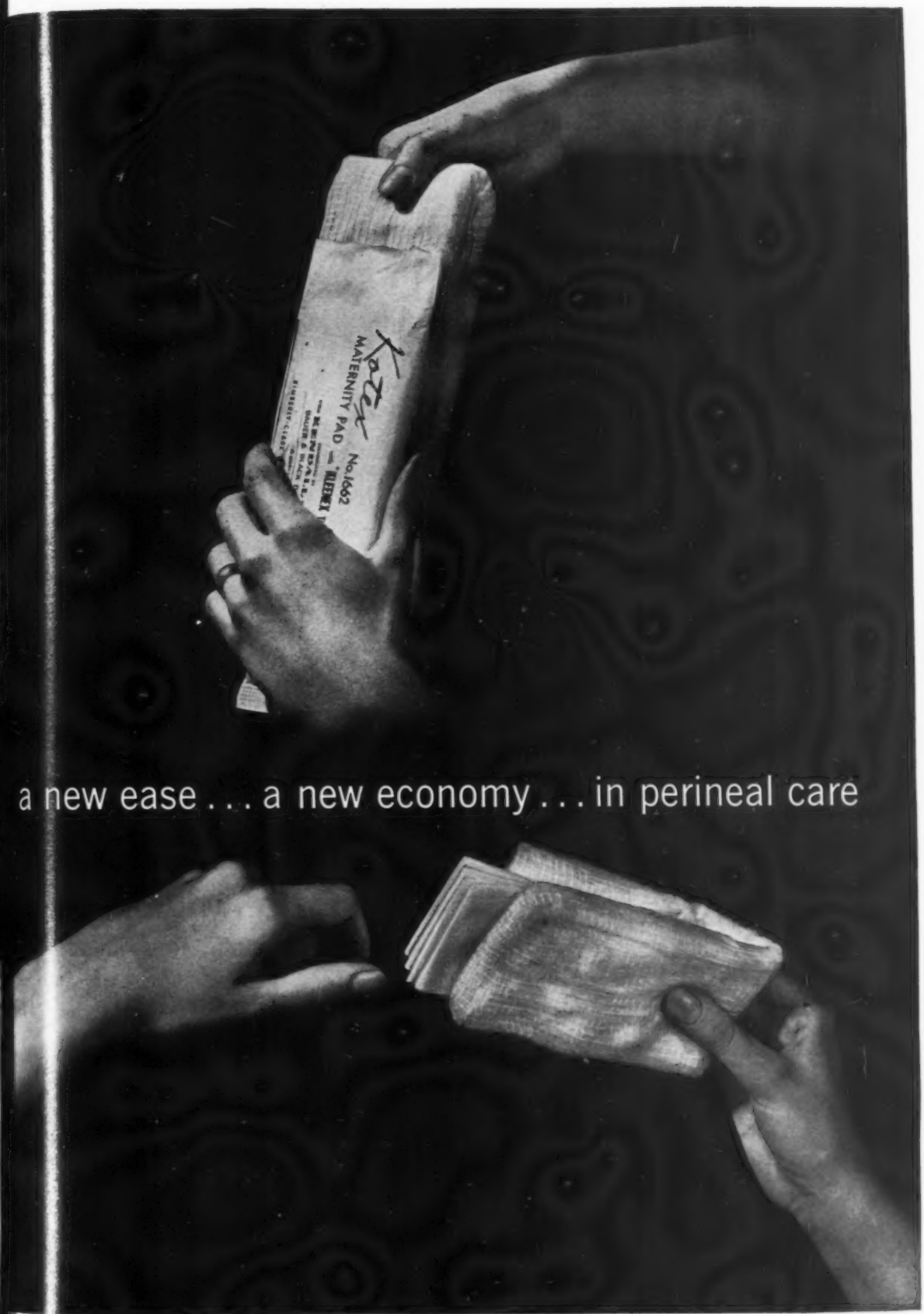
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Notes About People

(Concluded from page 12)

• D. A. Macgregor has joined the staff of the Calgary General Hospital as director of personnel. He is a graduate of the University of Alberta with a degree in Clinical Psychology and has done post graduate work in Industrial Psychology and Administration.

• Recently appointed is Miss D. Wardle as medical librarian to the Calgary General Hospital, Calgary, Alberta. She was formerly administrative assistant to the Director of the University of Alberta.

• Dr. Dollard Simard has been appointed chief of the Department of Gynaecology at Notre Dame Hospital, Montreal, succeeding the late Dr. Leon Gerin-Lajoie.

• Dr. Donald Cant of Corner Brook, a past president of the Newfoundland Medical Society, has been elected to membership on the Maritime Blue Shield-Blue Cross Board of Trustees.

• Dr. J. A. Dupon, D.P.H., formerly medical health officer, St. Boniface, Manitoba, has been appointed medical director of the Grey Nuns' Hospital in Regina, a newly created position.

• Roderick M. Hungerford has been appointed a new member of the board of directors of Childrens' Hospital, Vancouver, B.C.

• Anne C. Campbell, medical record librarian, has recently been appointed to the staff of the Queen Elizabeth Hospital, Toronto, Ontario. She was formerly employed at St. Joseph's Hospital, London, Ont.

• Dr. R. M. Mitchell of Sudbury has been elected president of the College of Physicians and Surgeons of Ontario and Dr. J. S. Delahaye of Kingston vice-president.

Executives' Health Clinic

During the past two or three years, a number of corporations have requested the board of management of the Montreal General Hospital, Montreal, Que., to consider the establishment of a clinic where corporation executives may receive periodical physical check-ups to the advantage of their company, themselves and the community.

At the present time, a number of corporations provide such an annual physical examination for their executives at a clinic in the Eastern United States.

Recognizing that the prevention of illness is as important a hospital function as the treatment of disease, the board of management has approved the establishment of an Executives' Health Clinic.

This clinic operates through company registration, not by individual request.

Work Conference

Under the leadership of Miss Edith McDowell, Dean of the School of Nursing, University of Western Ontario, a work conference on nursing was held from January 18-22, 1960, at St. Joseph's General Hospital, North Bay, Ontario. Approximately 150 persons participated from ten northern Ontario hospitals. Topics discussed were in-service education, job satisfaction and the rôles of nursing personnel.

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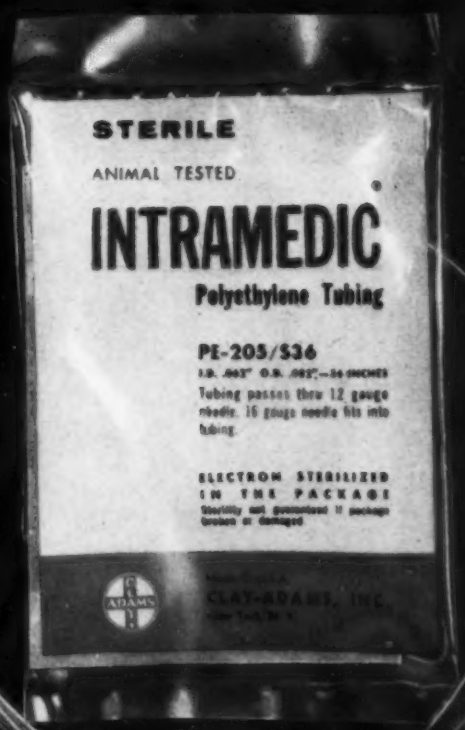

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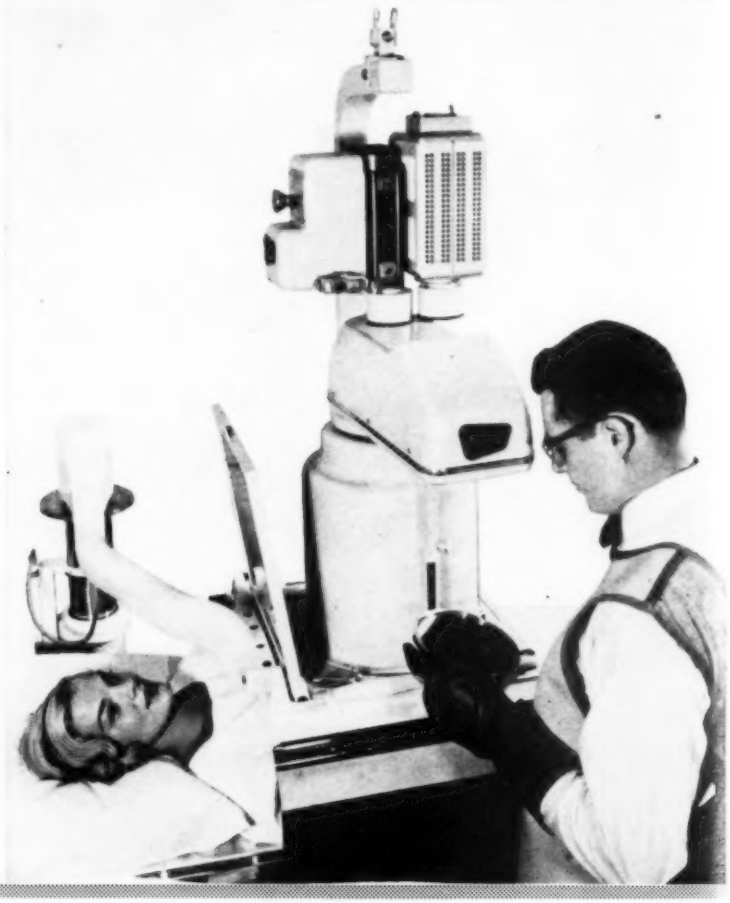

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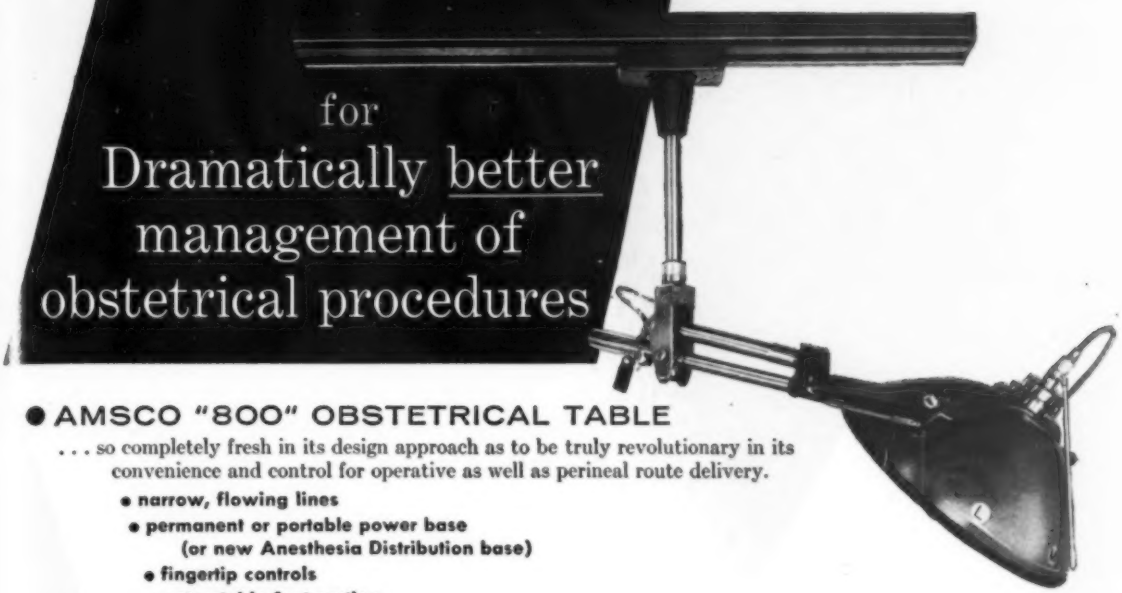

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Closer Ties at the Montreal General

The Montreal General Hospital's school of nursing has introduced two means of promoting closer liaison among staff, students and the parents of students. One is the Montreal General Hospital School of Nursing Associates, an organization comprising parents or guardians of students in the school. The other is a Mentor system under which the students, in groups of four, are assigned to a member of the staff who acts as their mentor.

The School of Nursing Associates aims at keeping its members and the general public informed about the objectives of the school of nursing. It also hopes to provide bursary assistance to needy students.

Commenting on the Mentor system, the president of the Associates, Mrs. A. Isobel MacLeod, who is director of nursing at the hospital, said this: "We have always prided ourselves on having a warm, personal, homelike atmosphere and we believe that such an environment contributes significantly to producing a good nurse. To enable each of our students to have the support of knowing there is a personal interest in her welfare on the part of the staff, each student is now assigned to a teacher, head nurse or administrator, who functions as her mentor".

The mentor sees her students at regular intervals, both in groups and individually, to inquire into their welfare and offer help in any way it may be needed.

Classes at the W.C.B. Hospital

Workmen who have been injured on the job and are now patients at the Workmen's Compensation Board Hospital and Rehabilitation Centre at Downsview, Ont., may attend classes sponsored by the Department of Education. Many injured workmen show a keen interest in progressing beyond the normal aim of physical recovery, and go further, particularly in the field of education. Because of the patient placement situation it is necessary to divide the English language classes into two distinct groups. The first group are those patients confined to bed. They receive instruction during the day, in their respective wards. The clinic, or up-patients, attend classes during the evening hours twice-weekly.

—*News Bulletin, W.C.B.*

Prepaid Doctors' Services

Over four million Canadians are now enrolled for prepaid doctors' services under the members of Trans-Canada Medical Plans. The national association represents 11 prepaid doctors' service plans across Canada which are sponsored or approved by Canadian medicine.

The plans are: Maritime Medical Care Incorporated, Maritime Hospital Service Association, Quebec Hospital Service Association, Physicians' Services Incorporated, Toronto, Windsor Medical Services Incorporated, Manitoba Health Service, Medical Services Incorporated, Saskatoon, Group Medical Services, Regina, Medical Services (Alberta) Incorporated, Medical Services Association, Vancouver, and B.C. Medical Services Incorporated.

The Canadian Red Cross will have to collect 500,000 bottles of blood in 1960 to meet transfusion therapy demands of Canadian hospitals.

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Bleached white, pastel shades (blue, pink, yellow, green) sizes 72" x 90", 55" x 81", 32" x 41"

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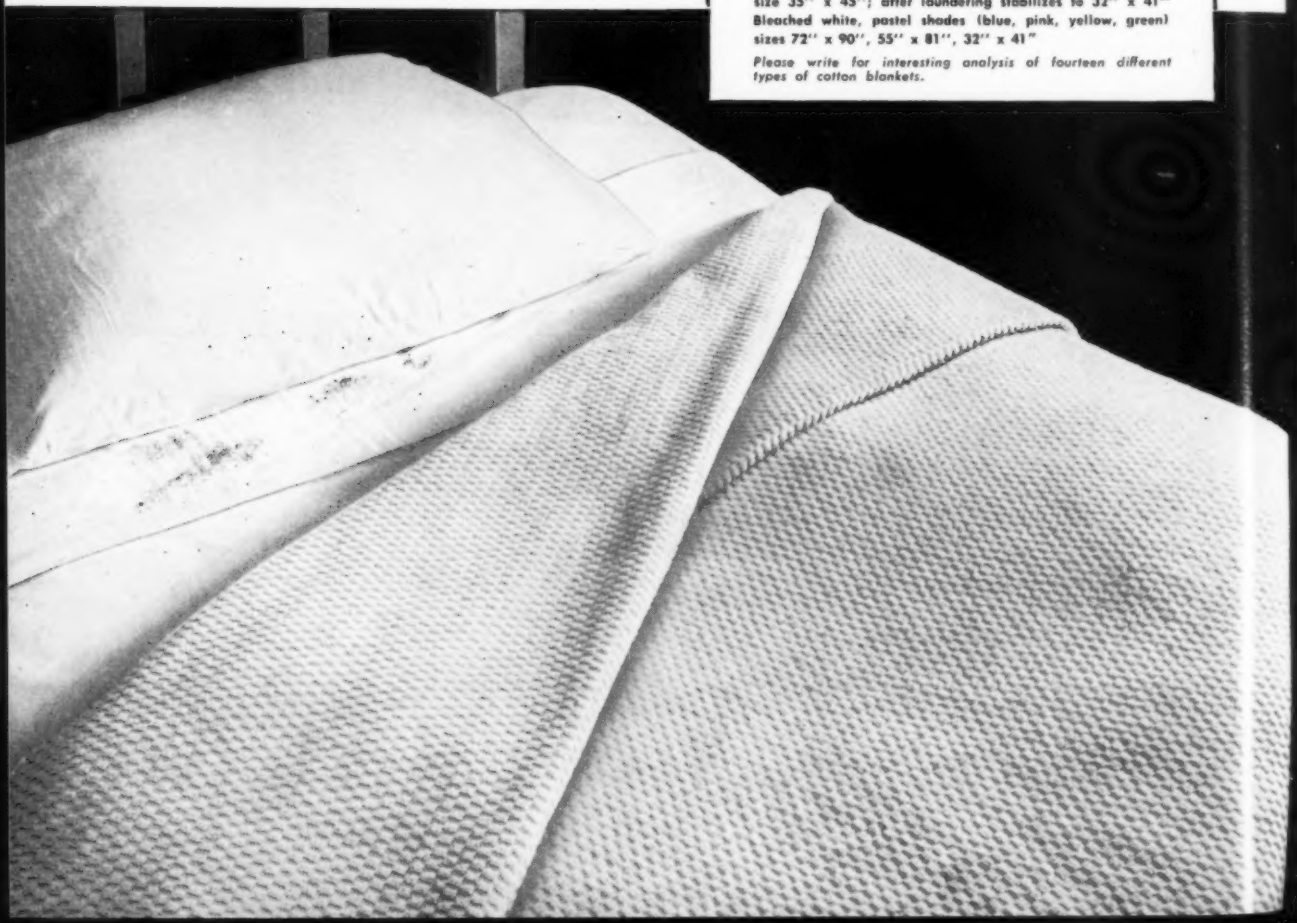

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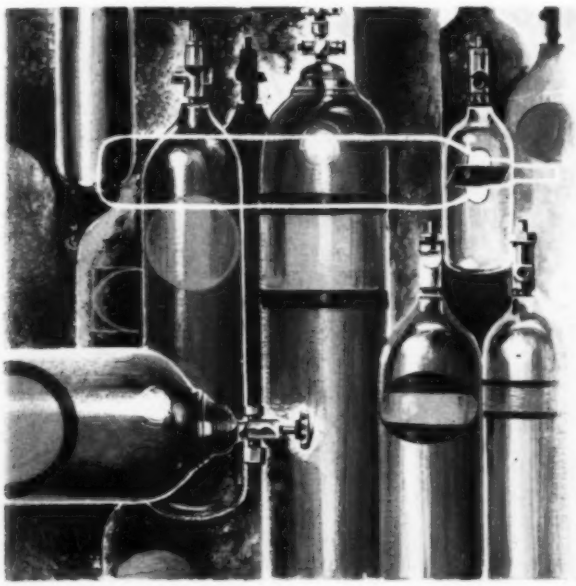
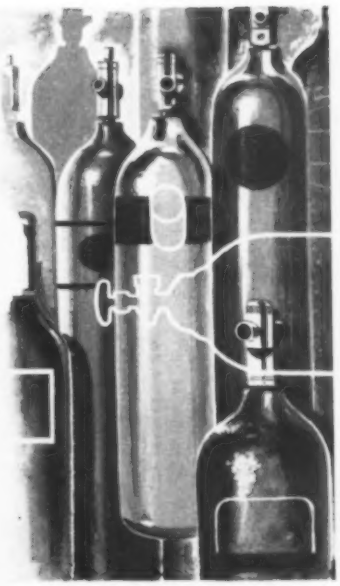
There is a difference

At first glance these two insects appear to be identical. Actually, the bug on the left is the fearsome Indian carpenter bee, while its "twin" is a harmless housefly. This similarity in appearance protects the fly from its natural enemies and permits it to live its life in peace.





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V. Douglas Piercey, M.D., Editor

Canadian Hospital

Obiter Dicta

Institute and Workshop for Hospital Engineers

LAST OCTOBER during the annual convention of the Ontario Hospital Association, the hospital engineers of that province held their first meeting as a section of the O.H.A. Some 125 enthusiastic operating engineers gathered on that occasion to hear lectures on topics of special interest to them and to discuss their mutual problems. Francis R. Benvenete, chief engineer at St. Michael's Hospital in Toronto, was chairman, assisted by a resource group for discussion purposes. Mr. Benvenete was subsequently named chairman of the section for the year, with Gordon Stevenson of Toronto East General and Orthopaedic Hospital as vice-chairman and Harry J. Cunningham, also of St. Michael's, as secretary.

The new section, with the assistance and guidance of officers of the Ontario Hospital Association, promptly started thinking in terms of an educational program directed toward the hospital engineer. And scarcely six months later a hospital engineering institute and workshop was held in Toronto, April 11, 12, and 13. The program was designed to stimulate new thinking on the part of engineers, to provide a forum for discussion of current problems and new developments in the field of engineering as applied to hospitals. Its purpose was also to develop in the engineer an awareness of his relationships with all other departments in the hospital and his responsibilities in the over-all standard of patient care.

Approximately 100 engineers were registered and able to attend for the full three days. They came from as far away as the Lakehead, from Ottawa and border cities. While most of the speakers were from larger hospitals, it was emphasized that the principles enunciated were even more important to those who work in small hospitals. There are more of them and they have less skilled help. These people were urged to raise their voices, to air their problems, and they did so readily.

Besides speakers within their own vocation, the engineers were addressed on several occasions by administrators and spokesmen for government departments, as well as by officials of the Canadian Hospital Association and the Ontario Hospital Association.

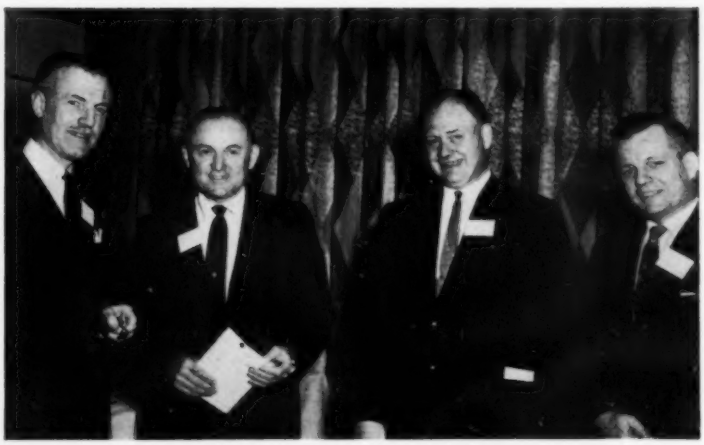
In the past few years there has been a marked increase in the interest displayed in educational programs by hospital people generally and departmental institutes are becoming frequent. We are pleased to see hospital engineers now undertaking this type of program for their own benefit. For this reason we are glad to publish in this issue several articles based on the addresses given at the engineering institute. See pages 37 to 52. In doing so we are sure that they will have a broad interest to hospital people in all departments.

Accreditation Guide

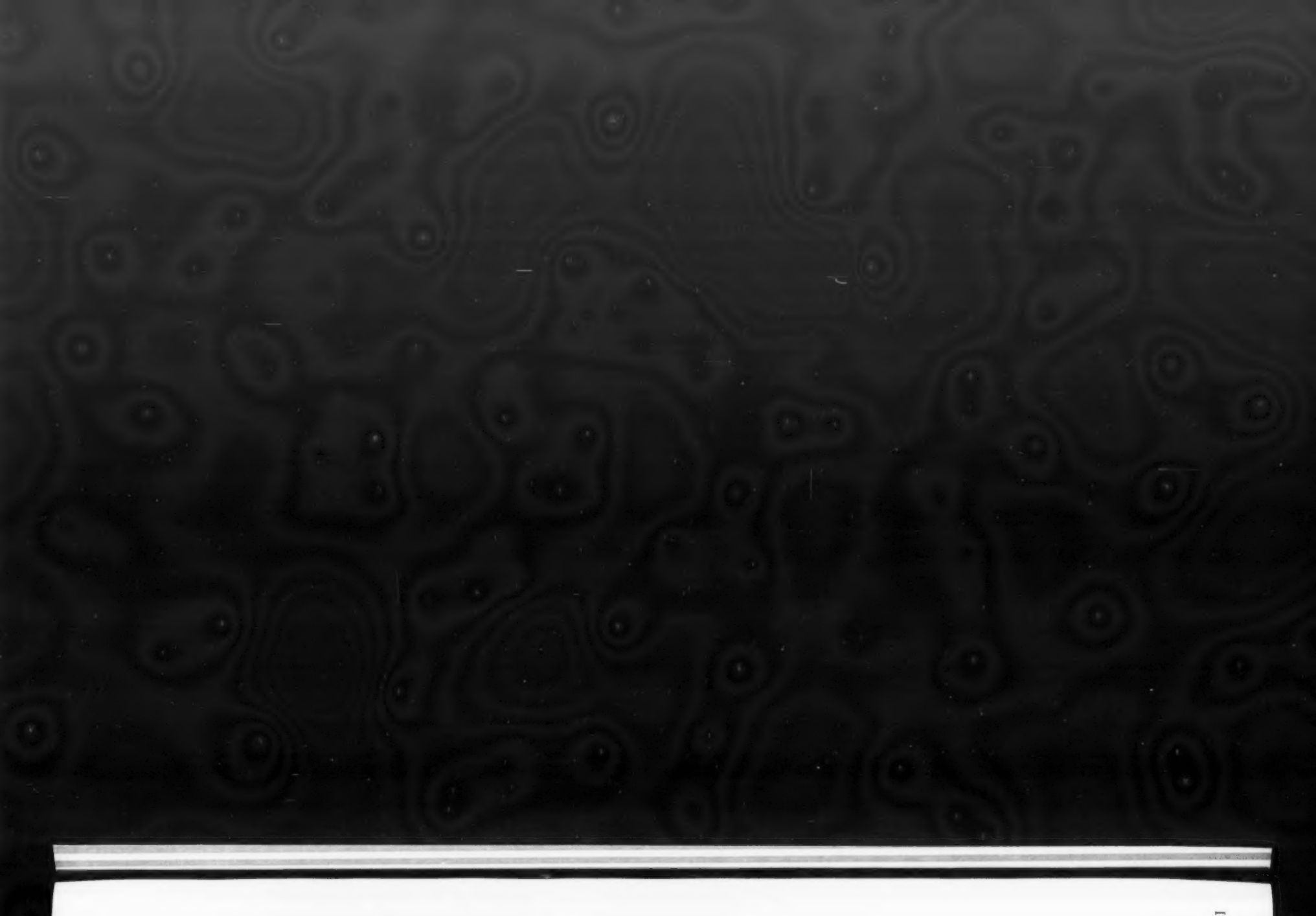
THE Canadian Council on Hospital Accreditation has published an accreditation guide for Canadian hospitals. The purpose of the guide is to aid Canadian hospitals in their efforts to attain and maintain accreditation standards for patient care. As well as listing charter members of Council and officers, the first six pages of this publication include information regarding eligibility for accreditation, survey procedures and documentation approved by Council. Pertinent extracts of the Bulletins of the Joint Commission on Accreditation of Hospitals occupy the remaining pages and provide an interpretation and elaboration of policies of the accreditation program in general since 1953. Where in Canada variation from the American hospital system is implicit, these bulletins should be interpreted in the light of the Council approved documents to determine their applicability to Canadian hospitals. Dr. W. I. Taylor, Executive Director of the C.C.H.A., has included an index which makes the guide very useful as a reference text. It should be noted, however, that the two leaflets covering *Standards for Accreditation of Canadian Hospitals* and *Suggestions for Medical Staff By-Laws, Rules and Regulations*, take precedence over the guide. The accreditation guide itself is to be published two or three times a year and will replace future bulletins of the J.C.A.H. This first guide is available at $1.50 a copy, as are the leaflets at $1.00 each, from the C.C.H.A., 150 St. George Street, Toronto.

C.H.A. HEADQUARTERS

— *official opening*



ON the evening of May 23, during the 1960 assembly meeting of the Canadian Hospital Association, the association's new office building was officially opened by the Hon. J. Waldo Monteith, Minister of National Health and Welfare, who is honorary president of the association. In the picture, above left, the Minister is seen with the president, Stanley Martin during the ribbon cutting ceremony. Over 125 guests were present, including the directors and delegates. Left centre, a group of Sisters are seen arriving promptly. Below, A. J. Swanson, a past president, chats with C. V. Charters, a past president of the Ontario Hospital Association. Standing are Mrs. W. D. Piercey, wife of the executive director, and Mrs. Charters. Above, left to right, the president, Mr. Martin, with Dr. E. L. Crosby, director of the American Hospital Association, Dr. W. D. Piercey, executive director of the C.H.A. and Dr. A. L. Swanson of the University Hospital, Saskatoon, president of the Saskatchewan Hospital Association. The final picture shows the first C.H.A. board meeting to be held in the new building, just prior to the meeting of the assembly.



The engineer and departmental co-operation

Sister M. Janet,
Toronto, Ont.

ACCORDING to the literature, hospitals today rank fifth among large business enterprises. Maybe budget-wise hospitals can be compared with large steel and automobile industries but in *no* other way can the comparison stand. Why? First, because our product is good, efficient patient care—that is the end toward which each department is making its contribution. It is not a question of assembling nuts, bolts, and pieces of steel into an inanimate article but rather of using our knowledge and skill to restore to well-being the most intricate of God's masterpieces, the human body. Secondly, the yardstick of success. We cannot look to the profit and loss statement for an indication of success—the excess of cash receipts over expenditures just does not exist in our world. We measure our success by the number of fellow citizens we have restored to the community completely cured or at least sufficiently rehabilitated to resume his place in his own group. No one will disagree with me when I say that this is no easy task. Yet it is a noble one—one of the noblest in our society.

The rendering of good patient care requires a very complex organization. Besides physical facilities, we need physicians and surgeons, laboratory and radiology technicians, pharmacist, dietitions, physio and occupational therapists and nurses, supported by engineers, maintenance men, housekeeping staff, laundry personnel, purchasing agents, storekeepers, accountants and clerical workers. That is quite a formidable list of talented, highly-trained people. All those skilled persons must have their attention focused on the patient who alone is the reason for the hospital's existence.

If everyone in the hospital has the same goal, why then is there any difficulty in establishing a spirit of co-operation and oneness in the hospital? Probably because each department is a specialty or complete entity in itself. There is a tendency within a department to think that no one has the same problems and that everyone should yield to them the right of way. In a large departmentalized hospital the workers in one department might never become acquainted with those in another. Their only contact is the complaint or angry query over the telephone. This of course, is the extreme; but there must be a positive effort on the part of the administration to bring the workers together either on a social level or on projects related to the hospital as a whole.

No matter how important one department may think its work is, it, by itself, cannot provide good patient care. The biochemist or bacteriologist may do test upon test and make report upon report, yet without the physician to interpret and apply the knowledge and the nurse to carry out his orders, the patient will be no better than when he came into hospital. All departments in a hospital are interrelated and interdependent. You can readily see that the nurse and physician at the patient's bedside must needs reach out to the laboratory, x-ray department, pharmacy, and dietary department and call in all these skilled persons to assist them in caring for the patient. Should one department refuse, the organization falls apart and, much more serious, the patient is neglected.

What is the rôle of the engineering department in rendering total patient care? For our basic needs, water, heat and light, we depend entirely on the engineers. In their hands lies the responsibility for the safety of these services. As one watches new outlets being contrived, heavy equipment being installed, or steam lines being renewed, one cannot help but think how much we depend on the skill, knowledge and good judgment of our engineers. As you walk about the hospital, you cannot fail to be impressed by the major rôle of engineering in modern patient care. They are keeping pace with the development of modern science as it applies to the hospital. It is to them we look for advice and guidance in every type of apparatus we may be obliged to acquire. Just as in commercial enterprises, the hospital is calling into use more and more mechanical equipment, electronics and other devices to measure and assess processes and activities in the various systems of the human body. Though nurses and doctors are using these instruments, they understand little or nothing of the mechanical details—they are totally dependent upon engineers. We trust in their guidance for the purification and correct flow of air in our operating theatres. We could go on enumerating the fields in which they excel—including renovation projects and the maintenance of the physical

The author is the Superintendent of St. Michael's Hospital, Toronto, Ontario.

functions, responsibilities organization and staffing

in the engineering department

J. F. Cooper,
Toronto, Ont.

OUR first function in our official calling as operating engineers deals with the plant, boiler room or power house. We are responsible for the safe operation of this plant, and its function in turn is to provide the necessary energy in the form of steam and hot water to meet the needs of the hospital. We are also responsible for the proper functioning of the refrigerating compressors used for cold storage and air conditioning. This exclusive franchise is clearly spelled out in the Operating Engineers' Act.

Other functions which the engineer should be concerned with are those pertaining to management. They are as follows: planning, organizing, directing and representing. These aspects of management are essentially the same in all hospital departments.

The responsibilities of the engineer embrace three broad areas as a legal requirement, a contractional responsibility, and a moral responsibility. The legal requirement deals with the registered plant, both steam and mechanical. This will determine the classification of engineer required to operate and have charge of the plant, and those required to operate the plant on a 24 hour basis in the absence of the chief engineer.

Since our engineer is responsible for safe operation he should have a plan formulated to take care of equipment failures in the steam plant. I am sure that one of the first plans is an alternate method of getting water into the boilers. There are other methods of firing in the event of interruptions to the normal supply of fuel and methods used to supply electric lighting and power in the event of failure of hydro. If you do not have these three areas covered by alternate power sources you cannot be assured of continued operation of the plant.

Since we have three major areas involved in supplying services, our other responsibilities are governed by administrative or board policy. We are concerned with staffing and supervising the following: the steam and mechanical plant, the electrical plant, and the maintenance of buildings and grounds.

A contractual arrangement to perform other functions than those already mentioned will govern further responsibilities of the engineer. However, he has as well a moral obligation to establish harmony in those who work under him and to see that other departments are considered and good relations established.

The next function and responsibility is to see that the necessary heat, light, power and water (in addition to related services) are being maintained to meet the needs of all departments.

The engineer has a responsibility to see that regular and continuous inspections are made in order that no department in the hospital will be inconvenienced due to failure of these essential services. The engineer can play a very important rôle in patient care if he is aware of the relationship. It is for the sake of the patient he must make planned inspections of equipment under his care and provide properly supervised maintenance procedures.

It is absolutely necessary for the engineer to complete a study of the mechanical and electrical systems within the hospital and in most cases he is the only person available with the necessary knowledge of existing layouts to advise administration of the effects of planned changes. Hospitals are continually forced to change due to the introduction of new equipment and advances made in the medical field.

Organizing and Staffing

It is difficult to state the optimum number and types of personnel required as these are affected by various considerations. These are: the size and complexity of the hospital which will determine the amount of work to be done, geographic location, available labour force, costs (contractual versus "do - it - yourself"), administrative policy, space and facilities to do work, budget and government regulations.

It is absolutely necessary to do the maintenance work in any event. The choice lies in what degree we decide to do it ourselves and to what extent we use other agencies.

In building hospitals, health and fire standards as well as construction standards must be met. These standards require the submission of plans drawn to scale so as to clearly present the proposed design, as unless the site and construction are approved, no hospital may be constructed. Since we have to meet

(concluded on page 100)

Mr. Cooper is chief engineer at Toronto Western Hospital, Toronto, Ont.

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FAN UNIT #67,#68,#69. FAN ROOM #1

MONTH	1 FAN & BEARINGS	2	3 BELTS	4 STEAM STRAINER	5 STEAM TRAPS	6 JOHNSON CONTROL	7 FILTERS	8 PRECIPITRON	9 MOTORS	10	
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Operational planning

H. L. Balmforth,
Toronto, Ontario.

ACCORDING to the dictionary, to operate is to make everything perform its function. It sounds easy, and it is, *if* you figure out in advance the mechanics of keeping it going. That is, if you have a plan. You cannot erect a building or make a machine without plans and specifications. Neither can you operate without them.

There are over 300 hospitals in Ontario and they vary in size from fewer than 10 beds to over 1,500. In many hospitals the chief engineer* is the whole engineering staff. In others, he has firemen, plumbers, steam fitters, electricians, carpenters, machinists, painters—scores of skilled men to direct and control. But in the aggregate the little man in the smaller hospital provides service for as many patients as do the engineers in a large hospital. There are 34 "big"

The author is chief engineer at The Hospital for Sick Children, Toronto, Ontario.

**The author uses the term chief engineer to mean the person who is responsible for getting the work done. In the author's hospital the head of the department is the maintenance supervisor.*

MAINTENANCE SHEET

DATE 23-3-60

7th FLOOR

ROOM	W.C.	SINKS or BASINS	TAPS	BEDS	TABLES	OXYGEN	SUCTION	LIGHTS	REPAIRS
743		✓	R					X	NEW WASHER ON DISHWASHER FILLING VALVE
									NEW WASHER AND PACKING ON HOT WATER
									TAP OVER SINK
745	✓	✓	R						WASHER ON TAP
746		✓	✓						
747		✓	R						WASHER ON DISHWASHER FILLING TAP
748		✓	✓						
749		✓	✓						
									7th FLOOR NORTH PANTRY MIXING VALVE
									LEAKING (W.O.I.)
									WORKING WITH PLUMBER IN THE AFTER-
									NOON

Symbols:- Checked - O.K.

Repaired. R W.O. issued. X

Sticker for Machine Shop. S

hospitals (500 beds and over) with close to 38,000 beds; but there are some 273 smaller hospitals with almost 27,000 beds. Therefore, with respect to the number of patients cared for in all hospitals, the little man is just as important as the "big" man; and moreover he has in many cases little skilled help.

Every hospital is an individual entity. So the engineer must make a plan which will suit his hospital, his staff, and his management. For such a plan of work there are two essentials. Both require paper work—and if the engineer is not prepared to find time for paper work he might as well forget about operational planning. The first of these essentials is: a list or inventory of every different kind of item to be cared for. Arrange them by rooms, by departments, by machines, as you will, but make this list complete in every detail. It should include the name of the manufacturer, the supplier, the model or type, the date of purchase and the cost.

The second essential is a written detail or reference to a bulletin showing how to take care of each different item, step by step, and telling how often it must be examined.

You haven't time to make these lists and details? You will certainly not make them in a day. Mine are not complete and I have been working on them for a long time. Try taking half an hour each day to set up one item and let your system grow. One procedure can be started immediately and this we use for minor items. It is a matter of regular inspections, lubrication, and small repairs to all equipment you find in an ordinary hospital room—electric fixtures, convectors, beds, bedside tables, doors, windows, blinds, and cupboards.

These must be listed on a form which can be checked off. You haven't a form? Then take a piece of squared paper (¼ inch squares), leave a couple of columns on the left hand side for room numbers and, along the top, write in all the items you expect to find and allow a column for each. Then start at one end of the hospital and go into every room in the place—and when you have been around, start over again.

We find that it suits us to inspect each room every six weeks. We have 1,500 rooms (all types) and use three men almost full time on such inspections. One looks for mechanical trouble, one electrical, and one general carpentry work. These three men were taken from our regular repair crew and, in this way, we give better service at no extra cost. They do not need to be skilled tradesmen but must be intelligent, observant and conscientious workers.

In the smaller hospital, it might easily be that the "Chief" would make these rounds himself; and he might do so by taking an hour each day to do say

(continued on page 74)

HOSPITAL FOR SICK CHILDREN

Work Order for Requisition No._____

JOB

LOCATION

EMPLOYEE	DATE	TIME FROM	TIME TO	HOURS	RATE	COST

MATERIALS

QUANTITY	DESCRIPTION	UNIT	COST

SIGNED_____ EXTENDED BY_____

FORM 75-42-30

THE HOSPITAL FOR SICK CHILDREN

WORK REQUISITION

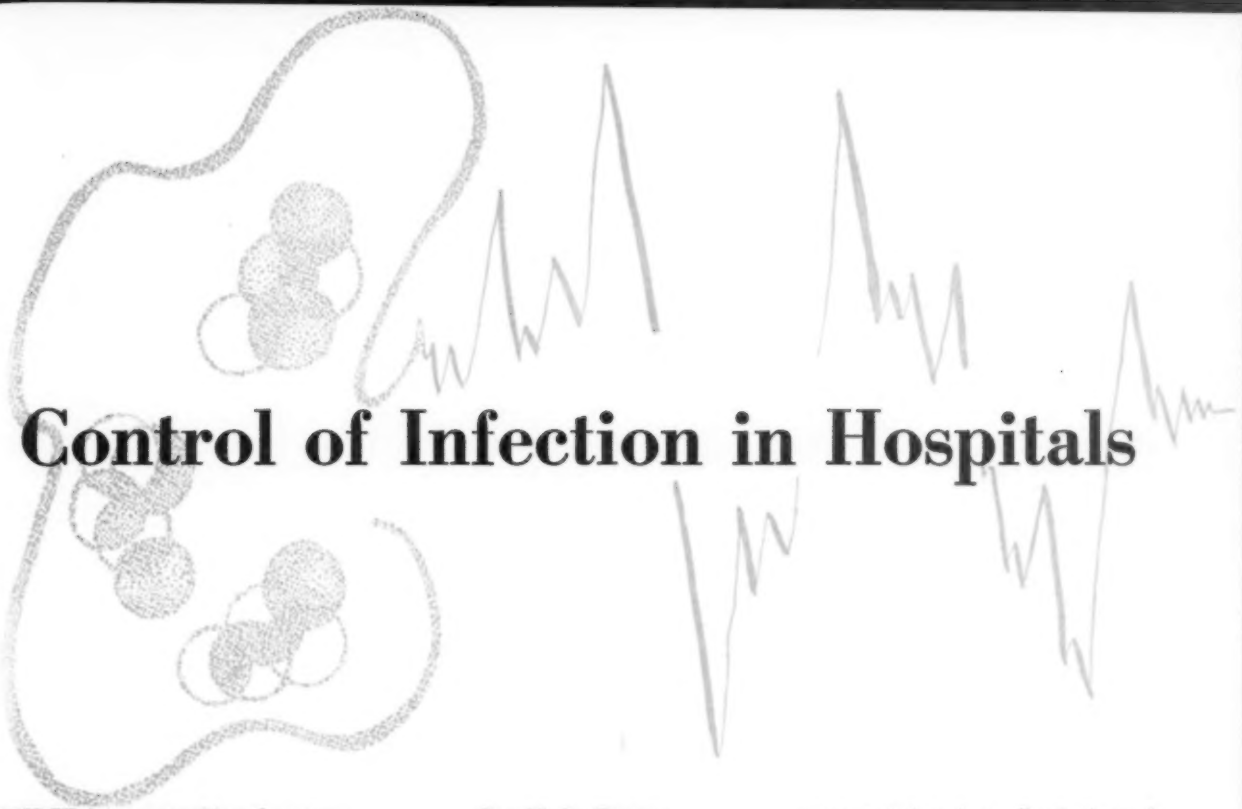
Form 75-01-22—A7 10M—Aug. '54

Department	

WORK REQUIRED:—If Not Maintenance State Reason

WHEN REQUIRED

Approved By	Date Issued:— Dept. Head:	Requisition Number
	Date Completed:— Dept. Head:	



Control of Infection in Hospitals

Gerald P. Turner,
B.Sc., Phm., D.H.A.
Toronto, Ontario

FIRST let us consider the meaning of the term *infection*. The word, infection, will mean either (1) the implantation of an infective agent or (2) the communication of disease from one subject to another. In each instance the term communication appears, showing that the infectious agent creating the disease is transmitted from something or someone to the individual in which the disease occurs. Therefore, we see that an infection requires: (1) the infectious agent which is the virulent organism, (2) the transmitter of the disease which is the carrier and (3) the patient. In a hospital setting, two of the three conditions are immediately brought together under one roof, *i.e.* the virulent organism and the patient. This factor brings us back to our topic, *The Control of Infection*, which is setting up the barriers to minimise or eliminate the transference of the infectious agent via the carrier to the patient.

Background

The control of infections in hospitals is not something which has suddenly sprung up in the past few months—it dates back to Lister's time when the carbolic spray was used in the operating room in order to kill airborne bacteria. In the ensuing years antiseptic and -aseptic technique was drilled into the members of the hospital staff. There was no mystery to the programs that were instituted—just the strict adherence to sound principles, the use of soap and water and a great deal of elbow grease. Then in the late 1930's and early 1940's there came the discovery and refinement of drugs called antibiotics, which were given the distinction of such terms as wonder or miracle drugs and such they were.

With the advent of the wonder drugs, penicillin, chloromycetin, aureomycin, et cetera, it was frequently found that combating infections took the form of an injection or oral administration of these antibiotics and *Presto!* there was no infection. The fact that infections could be treated and cured so rapidly created an attitude of laxity and almost a cavalier approach to those organisms which previously had taken so much of the staff's time in techniques and control. One could almost feel the relaxation of the barriers which had been built up over numerous years of hand-to-hand combat with these unseen but respected antagonists, the virulent organisms, carrying with them infection, disease and on occasion death. Undoubtedly, many of you present today have lived through this period and probably know, at first hand, to what I am referring.

Resistant Strains

We have entered into the era of resistant strains which simply means that the types of organisms we have always had with us are still prevalent but some have added the characteristic of not being affected by our wonder drugs. Infections and cross-infections in hospitals are not a thing of the past but, as numerous studies point out, are very much in evidence in hospitals to-day. The most alarming part of this is not that the infections are with us, since they have never left us, but that the methods used so freely in combating them in the past few years are no longer valid. The prophylactic injection prior to operation, in many instances, does not thwart infection and when the virulent organisms are transmitted they in turn take with them their resistant qualities and are extremely difficult to treat. In addition to the infectious diarrhea, scarlet fever, measles, mumps, viral hepatitis and the whole gamut of communicable diseases which occasionally flare up in the various parts of the hospital field to plague us, we now have a group of bacteria which formerly did not create too much of a problem and were fairly simple to treat. These have since added the characteristic of resistance to many of our antibiotics and are

Mr. Turner is assistant administrator at New Mount Sinai Hospital, Toronto.

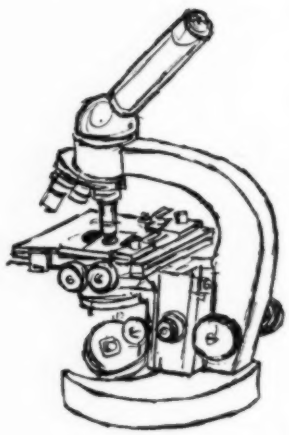
now capable of producing some serious, stubborn infections.

Source and Transmission of Infection

There are many sources of bacterial infection in hospitals. At first, most of the bacteria came from infected patients who disseminated the microbes in their immediate vicinity and contaminated everything within a few feet of their bed. This included the bedclothes, mattresses, pillows, floor, dressings, telephone and the air in the room. In recent studies it was found that bacteria called the *staphylococcus aureus coagulase positive* appeared to thrive in the hospital setting and could be traced to all parts of the hospital. This ominous sounding name which I am certain you have seen repeatedly in hospital literature of late is a bacteria that, when seen under a microscope, is circular in shape, gold in colour and tends to group together in the form of a bunch of grapes. This is the organism responsible for boils, carbuncles, abscesses and is, unfortunately, being cultured from swabs taken of infected wounds of clean surgical cases. Recent studies have shown that cultures of this bacteria were actually grown from swabs taken from door knobs, handles of dressing carts, sink taps, garbage cans, floors, wash basins, stretchers, wheel chairs and from throats and nasal passages of nurses, doctors, housekeeping personnel, engineering staff, dietary staff and even administrative personnel. There was almost no area or person that was free from this bacteria and, in the light of what was just said, it would appear that we are in dire straights. This is not entirely true since it would be virtually impossible to have an environment free from these bacteria, especially in a hospital setting. However, we can appreciate that there are a tremendous number of sources within our hospitals which can create bacterial infections.

The next step to consider is where and how these sources occur. The main source is naturally the infected patient's room and we have seen that almost everything within a few feet of the patient can and often does become heavily contaminated. Into these surroundings come the nurses, doctors, maintenance men, housekeeping personnel, dinner ware, laundry, supplies, equipment and visitors. Not only do these individuals and items go into the contaminated area; but they also leave the area and take with them numerous bacteria which are re-directed through the hospital. We are now coming to the heart of the problem, which is what can be done to minimize or eliminate the transference of these bacteria through the hospital.

We realise that people who work in hospitals carry large quantities of infectious organisms on their person. This has been demonstrated in our hospital and from recent studies at other centres and it is not surprising that there is a movement towards self examination and real concern regarding the aseptic and isolation techniques now employed in the hospital field.



Awareness

Articles are appearing in hospital journals and, not too long ago, a symposium on the "Control of Staphylococcal Infections" was held in Chicago under the auspices of the American Hospital Association. In addition, this topic is now appearing on the program of institutes being held both in the U.S.A. and Canada. Therefore, we are all becoming increasingly aware of this very real problem that exists in our hospitals today. We cannot keep pace by trying to produce a new antibiotic every week or month because we may run out of derivatives before we run out of bacteria, and various steps must be taken in hospitals to control infections.

Infection Committee

The first step in many instances is the formation of an Infection Committee to analyze the situation within the hospital. The composition of this committee varies from hospital to hospital. Our hospital, for example, has the chief of surgery as chairman, the assistant administrator as secretary and representation from the departments of medicine, surgery, obstetrics and gynaecology, otolaryngology, ophthalmology, paediatrics, pathology and nursing service. The over-all purpose of the Infection Committee is to initiate a program for the study and control of infections in hospital, patients and personnel.

Program

The Infection Committee would normally prepare a general working program for review which would include: (1) the admission policies of the hospital, (2) the placement of patients once they are admitted, (3) the facilities to isolate patients, (4) the isolation technique and control of patients who have or who may have an infection, (5) the education of the hospital staff regarding infection control, (6) establishing whether existing procedures were adequate for the control of infections, (7) improving medical surgical technique, (8) improving hospital housekeeping technique, (9) developing routines to obtain bacteriological studies, (10) formulating procedures of reporting, categorizing and analyzing infections.

From the Committee program as listed, studies could be made of such aspects as: (a) the type of disease entities to be admitted to the hospital and, when admitted, a written procedure regarding the technique to be followed, (b) procedure of obtaining cultures of infected patients or patients suspected of having an infection and the method of reporting these infections, both in terms of the type of report and the individual who would be responsible for making out this report, (c) the analysis of the reports, (d) examining the methods of terminal cleansing of bedside equipment, (e) waste and refuse disposal in the operating room, case rooms and patient wards, (f) checking of mattresses and consideration of mattress covers and other means of sterilization of mattresses, (g) examination of dressing technique, (h) examination of isolation technique, (i) intern education regarding technique of scrubbing, gowning, draping and skin preparation as well as entering into an isolation ward and treatment of the patient therein, (j) education of hospital personnel in general and keeping the medical staff fully aware of the decisions being made and the part they must play in the control of infection, (k) setting up of procedures regarding supplies and equipment in the housekeeping

department, (1) developing a program of routine culturing of areas within the hospital, such as water tank reservoirs used in humidifying the air, autoclaves, operating theatres, case rooms, emergency, nurseries, air vents et cetera.

These are but a few of the areas which the Infection Committee may enter. The importance of their rôle, however, is to evaluate objectively what is actually occurring within the institution and to have sufficient representation on the Committee so that intelligent evaluation and recommendations may come forth from this group. The most important aspect, however, is not that recommendations come forth, but that they be implemented and followed through. Therefore, it is vital that this Committee be constituted not to make a study and then be disbanded but to continue as an active Committee which may meet at first almost weekly and then after the program is instituted at least four times each year. It is only through constant follow up that one may maintain and strengthen this program.

Engineering Department

One of the major areas often neglected is the engineering department. This most important department of the hospital is responsible for the maintenance of the entire institution. The staff of the engineering department enter every department of the hospital from the operating and case rooms to nurseries, patients' rooms and administrative offices. If one made a flow process chart tracing a member of the engineering department throughout the hospital, it would undoubtedly reveal that these individuals enter a vast number of places, many in close proximity to patients. If we also delve into the training in antiseptic and aseptic technique of this staff we would also find that in this specific subject, their training would be much below that of most of the personnel in the hospital. In other words, a great deal of stress is continually being placed on medical and nursing technique with regard to control of infection, while the one individual who by background cannot possibly have much knowledge in this field, continues to move from area to area acting as a carrier. This is by no means a reflection on the engineering staff, but on the hospital management of which the chief engineer is an integral part. We have neglected this most important aspect of this department. However, in our defence, I feel that we are realising the necessity of involving almost the total staff in the battle against infections and are eager to provide the necessary education and training required.

Job Training

Continuing in the vein of job training, with special emphasis on the patient in isolation, the engineering department, in order to play its rôle in maintaining the desired aseptic barriers, must first have some knowledge as to what barriers they are attempting to keep and why. I am certain that all of us can select individuals on our engineering staff who have not any idea of what bacteria are, their mode of transmission, or what is meant by cross-infection. In many instances, these same people may be carrying out a specific aseptic technique as instructed but are completely unaware of why they are following this routine and due to this lack of knowledge are just as apt to improvise their own techniques which may be entirely contrary to the established procedure. This may not be discovered too readily since one cannot be everywhere at the same time. However, as I said before, the blame lies with

us, since the maintenance man or engineer may not have the faintest notion of the importance of his rôle on the infection team—which merely points out the need for providing our staff with the facts necessary to do their jobs well.

This brings us to the method of imparting this information to our staff. We realize that this is not a simple thing to do due to the scope and complexity of this subject; but I do feel that between the co-operative efforts of the chief engineer, nursing service and administration, a simple explanation can be devised which can be used to re-orient the members at present on the staff and form an integral part of the job-training program for new members joining the engineering department.

We cannot take the attitude that language difficulties, intelligence quotients, turnover, et cetera, preclude us from carrying on a program of this type. The engineering department, due to its very nature, is too intimately connected with the over-all hospital operation to be excluded from accepting its responsibility in the control of infection.

Refuse Removal

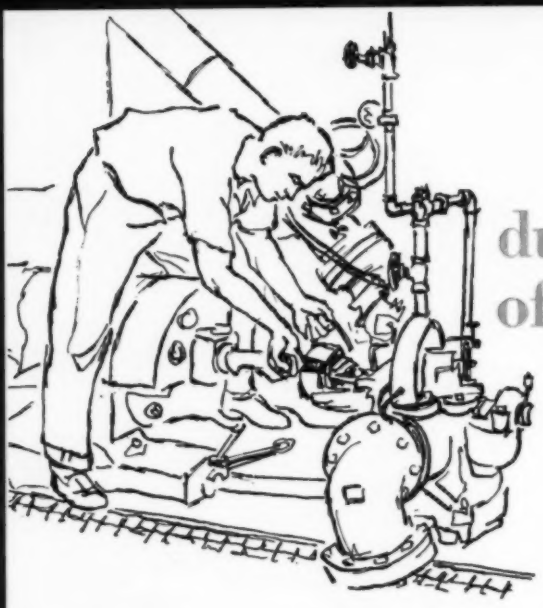
In some hospitals the removal of refuse is a housekeeping, or a maintenance function and this is an area which undoubtedly bears study. We found for example that in our own hospital, refuse, which in many instances was contaminated, was being emptied into a cart in the utility room of a patient floor. The amount of bacteria released into the surroundings was great so here we had another source of bacterial contamination and a break in technique. This was simply rectified by purchasing sufficient refuse cans to enable a one-for-one exchange with the garbage being emptied directly into the incinerator, then the containers hosed down with live steam. Special attention should be paid to the garments worn when disposing of the contaminated refuse. There should be a fresh change of coveralls when completing the job and the individual should be instructed on the method of washing his hands prior to assuming his duties.

Special Precautions

In nurseries there is the immediate concern of the newborn who are so susceptible to infectious bacteria. It is an administrator's nightmare envisioning a call that infectious diarrhea has struck the nursery. We all know what care has to be taken when entering this domain. The technique followed in this area must include all those who are involved and this naturally includes the individual who is making repairs in the nursery. Instructions in gowning, masking and the precautions to be taken should be basic information that the maintenance man or engineer must have, prior to being permitted to work in this department.

Similarly, written instructions in training on the techniques when working in the operating rooms and case rooms must also be available,

(concluded on page 51)



duties and responsibilities of the engineer

A. L. Lacey
Toronto, Ont.

DURING 1891, in Ontario, twelve public spirited men requested and obtained a charter under a government act to govern voluntary certification of stationary engineers. In 1907, the government, through a Board of Examiners, assumed the responsibility for the certification of all stationary engineers with the necessary powers of enforcement.

These measures and subsequent developments undoubtedly saved the lives of hundreds of persons by recognizing the danger in the operation of boilers, turbines, engines and compressors.

About 40 years ago statistics showed that every year in the United States between 1,300 and 1,400 serious boiler accidents occurred, of which 300 to 400 were violent explosions. The accidents killed between 400 and 500 persons, injured 700 to 800 more, and destroyed property worth more than half a million dollars. In a single explosion at the R. B. Grover Shoe Company at Brockton, Mass., 58 persons were killed, 117 more were injured, property worth $250,000 was destroyed, and an aggregate of $280,000 was claimed in the personal injury and death suits that followed.

The statistics also showed that these disasters had but scant respect for types — they occurred with water-tube boilers, although with these types violent explosions occur less frequently than with fire-tube boilers; with low-pressure boilers as well as with high-pressure boilers; with fired boilers as well as with unfired steam tanks; with small kitchen boilers as well as with hot-water heaters.

These facts emphasize: (a) the necessity of constructing and installing steam vessels and their appurtenances in as nearly perfect a manner as possible; (b) the importance of preventing carelessness in their operation and (c) the wisdom of having them inspected at regular intervals by disinterested experts.

The purpose of certifying the operating engineer in the beginning was safety, and the value of tested engineers has been proved time and again over the ensuing years. Fatal and destructive accidents are now the exception rather than the rule. To the safety angle may be added that of economy of operation and maintenance of equipment, which is accepted by industry on the basis of the graded certificate holder.

Thus we have the operating engineer contributing to the industrial wealth of this province by reason of safety, economy and maintenance. It is said that an engineer is a man who directs the forces of nature in the service of mankind, and this is certainly true when applied to the operating engineer.

Twelve years after the Act of 1907, the Trades and Labour Branch became the Department of Labour and in January, 1920, a new Act called The Stationary and Hoisting Engineers Act was passed. This Act brought into being the four stationary grades and one hoisting grade. Another Act was passed in 1927, and still another in 1932. This Act was called the Operating Engineers Act, 1932, and this was the first time the Act was so called. The Act was revised again in 1937 and again in 1953. It is probable it will be revised again in 1961.

Now in hospitals, a state of emergency exists in a normal sense because people do not go to a hospital until they are sick. Consequently the power plant must be efficiently operated so that the possibility of shut-down is greatly reduced. The supply of heat must not fail in the winter time nor the refrigeration or air conditioning in the summer, and there must be a source of reserve and emergency power for lighting, et cetera, in case the hydro-electricity is shut off for any reason.

I remember in a certain government hospital, in the middle of winter, an overloaded boiler gave out — 13 patients died because of insufficient heat and the inability of the operating staff to meet the emergency.

In most cases a hospital should have a central heating plant since generally the buildings are close together. This would enable operation of the plant in the most efficient manner by a minimum number of engineers. Even the emergency lighting set could be placed in the vicinity of the boiler room. However, it may be necessary to install an air conditioning system in a remote building and to operate it only during the warmer weather. In a case like this, if the compressor does not exceed 50 horse-power at high pressure, or is over 50 horse-power at low pressure, certified engineers are not required for the operation. However, if it is over 50 horse-power high pressure and in a remote

The author is Chairman of the Board of Examiners of Operating Engineers, Department of Labour, Ontario.

location, additional certified engineers will be required.

At one hospital, 150 yards from the boiler room, four 20 horsepower units were installed and this meant under a common registration, four fourth class engineers would be required. The hospital moved two of the units to another building and two extra registrations were allocated. The cost of the moving was $3,000, which would have been saved if care in installation had been used in the beginning.

It has been suggested that separate heating units with less than 25 horse-power high pressure or less than 75 horse-power low pressure could be installed at various locations in hospital buildings and registered separately so that certified personnel would not be required. In this case, some attention must be given to these units and it would be best to use certified personnel as a guarantee of safety. In this connection, some reference must be made to packaged units.

With the adaptability of fuel oil as a heating agent, the factor of heating surface to horse-power was modified. Most packaged units at one time developed one horsepower per five square feet of heating surface. Unfortunately, competition saw this figure lowered and in the case of the flash boilers a figure of 1.7 square feet to one horse-power was reached. Even the conventional cylindrical type of boiler, in some cases, lowered the factor to three or three-and-a-half, as compared with the factor of 12 as used by the Board. While this in part may be attributed to progress, the heat absorption in a boiler under full capacity should not be less than five, unless make up feed water is kept to a very low percentage. Packaged units in steam generation and even in refrigeration will be referred to again on the basis of the misunderstanding and misconception of infallibility of automatically controlled equipment.

I wish now to refer to another phase of administration of the Operating Engineers Act, 1953, and that is the finding and correcting of violations of that Act. Up until April, 1956, this problem of enforcement had never been realistically handled. To prove this point, we registered a plant in 1958 that was installed in 1921; and again, in 1959, we registered one that was installed in 1927. We also registered the Parliament Buildings, Kingston Penitentiary, and a number of other plants that were built a number of years ago. By March 31, 1957, we had corrected 171 violations for the previous fiscal year.

In October, 1957, we received our first inspector, and the number of violations corrected went to 517 for the period from April 1, 1957, to March 31, 1958.

In August of 1958, we received our second inspector and the number of violations corrected went to 989 for the period from April 1, 1958, to March 31, 1959. Our last full year, ending March 31, 1960, saw the all time record of 1,067 violations corrected. This month, for a period of seven working days, we have corrected 47 which, of course, is the result of the development during the previous few months.

Now the correction of over 2,000 violations without prosecution, in two years, does not happen without reaction. The reaction came by way of more examinations, raising of wage standards and the so-called nuisance value to management. The last named has brought demands for changes in the Act so that it will be less effective and have less coverage. Why should automatic equipment be watched by anyone? What could go wrong? Power equipment up to 200 horse-power should not require certified engineers, especially for air compressors and refrigeration equipment, it is said. Even over this horse-power, the equipment including boilers should only be checked every so often, say once an hour or so. These are a few of the queries and statements being made.

The accident-free years in Ontario have not been fully recognized. How many lives have been saved it is hard to say. If at present it is not realized that dangers due to the higher temperatures of gas and oil are greater than hand and stoker firing, there is something wrong with a person's objective thinking.

We will turn to the country to the south of us where certificates are not required. Here are a few instances, taken from insurance inspection files, which could have happened here if we had not taken the precautions we have taken through certifying the operating engineer.

In June, 1951, one man was killed in a boiler explosion.

In December, 1951, a hot water supply boiler exploded — two men were killed.

In March, 1952, a school boiler exploded. This was a completely automatic installation started by merely pushing a button; then an automatic temperature control took over, but the control didn't operate on the day of the accident.

In June, 1952, a boiler exploded — two men were killed.

In October, 1951, there were accidents through failure of controls. Grounded wire caused an explosion — five persons were injured. A corroded cut-out resulted in a badly burned boiler. Two cut-outs failed, so boiler tubes burned. Worn relay points caused a collapsed furnace. Loose adjustment screws resulted in a bulged crown sheet.

Then we have the following conclusions, also taken from insurance inspection records. Experience has shown the need for some degree of attendance on automatically-operated boilers. Studies of accident-cause-analysis statistics for the years 1956 and 1957 show that 46.9 per cent of the insured accidents (excluding furnace explosions) to high pressure steel fire tube boilers were the result of inadequate testing and maintenance of control devices. During 1958 this figure increased to 52 per cent. The 1956-1957 statistics on furnace explosions are also significant. They show that 20.9 per cent of the furnace explosions on oil-fired boilers and 21.5 per cent on gas-fired boilers were due to failure to test and maintain their control devices. Therefore while automatic operating and control devices have been developed to a high degree of operating efficiency and dependability they are still subject to failure, and some attendance is necessary. The extent of that attendance, however, is dependent to a great degree upon a good maintenance and testing program, particularly in respect to automatic controls. The frequency of attendance will vary from almost constant in certain plants, to varying periods for others that have a carefully planned and supervised program for testing and overhauling automatic controls, auxiliaries, and appliances.

Then, in refrigeration, we have the following record from December, 1952. A 150 horse-power ammonia system was designed to take

(continued on page 84)

Economy in plant operation

C. E. Baker,
London, Ontario

IN recent times we have heard a considerable amount about the value of the dollar; and the administration officers of our hospitals are ever conscious of rising costs. Each department head is expected to operate his or her department in an efficient and economical manner, with full attention to the services required. The power engineer is no exception to this rule. He is expected to supply the services of his department at reasonable operating costs. Many cases of savings made by wide-awake engineers can be cited, also many cases of waste.

Reports on plant operation submitted to administration officers are not always fully understood. An engineer may be satisfied that his statements regarding evaporation, efficiency, et cetera, are correct; but to the accounting office they may mean very little. This office is concerned with costs; so reports should be clear and costwise.

Fuels

Your fuel may be coal, oil, or gas; but in any case it must be selected to suit the existing firing equipment. This is particularly so in the case of coal. Coal is sometimes purchased on the basis of cost per million b.t.u.* Actual performance is not always as anticipated. A coal may be of a slow burning, coking or caking nature and not suited to the type of stoker on hand. It is advisable, where possible, to try a car load of coal to ascertain if it is suitable for the firing equipment.

Fuel cost per thousand pounds of steam generated is a reliable guide. An increase of a few cents per ton of coal will, in most cases, result in a decrease in the cost per thousand pounds of steam. The cheapest coal is not always the best buy in the end. Consideration must also be given to the cost of stoker maintenance per ton of coal consumed.

The author is chief engineer at Westminster Hospital in London, Ont., and power plant inspector, Department of Veterans Affairs, Ottawa.

**Units of power from one ton of coal.*

Operating Conditions

Instruments are needed which operate efficiently; and automatic controls, metering equipment, et cetera, are essential. Instruments are installed to be read, understood, and to serve as a guide for plant operation.

Our attention is often drawn to the draft gauges and the flue gas temperature indicator. This robber of our fuel dollars should not be allowed to run wild. Full attention to draft, air supply, condition of baffles and heating surfaces will, in most cases, result in a decrease in the temperature of the exit gases and a saving in fuel dollars.

Installation of automatic controls for combustion control, excessive pressure control, and safety, can result, when operating as intended, in a definite saving in fuel dollars. Cases have been found where unwarranted interference with these controls has caused unreliable operation, with resulting loss in efficiency. All controls, linkage, range, et cetera, should be checked regularly by the chief engineer or by a competent person assigned to this duty. These controls have been installed to accomplish a specific purpose. The whole aim is lost when alterations and interference are permitted by those not qualified to make adjustments.

The temperature of feed water to the boiler should be maintained at the maximum temperature possible with the type of equipment available. Full use of exhaust steam should be made. It is also advisable, when exhaust steam is not available, to use live steam for this purpose, as then boiler stresses are lessened.

Steam Distribution

Hospital distribution systems for supply of various steam and condensate return services to a group of buildings require special attention. Leaks are dollar losses so prevention is the answer.

Daily visits by the maintenance staff to isolated pump rooms, equipment or control room, are a necessity to prevent waste. This daily check is not a waste of time. Checks should be made to ascertain the condition of the equipment in regard to its efficient operation. Steam pressures should be checked to see that the minimum pressure is being maintained to supply the requirements of the services from the pressure reducing stations. Excessive pressures increase the

heat losses from the distribution piping and increase piping maintenance.

Recommended Pressures are: laundry equipment — 100 PSIG; main distribution system — 40 to 50 PSIG; operating suite — 40 to 50 PSIG; and dietary services — 10 to 15 PSIG. Steam heating services should be as low as possible, with special attention to the end of the system for satisfactory supply pressure.

Leaks — Leaks at valve packing glands should not be neglected. These cause losses in addition to permitting cutting and corrosion of the valve spindles.

Flash Steam — Where flash steam is indicated at condensate receiver vents, it is chiefly an indication of defective steam traps. All receiver vents should be fitted with special vent fittings to permit escape of air and non-condensable vapours. Fittings should be of a type that will prevent an inflow of air.

Flash steam from high pressure returns, such as laundry equipment, should be absorbed. This is possible by installing a heat exchanger through which the high temperature returns are passed. Heat can be absorbed by piping the cold water supply, plus recirculated water, from the laundry hot water storage tank through the heater. In this manner the demand for live steam required for heating laundry water is reduced.

Pipe Insulation — One of the most important items that is often neglected is the pipe covering or insulation. Where piping repairs are required, the insulation should be carefully removed and stored for reapplication. The average steamfitter helper is capable of removing the insulation and refitting it to the piping when repairs and testing are completed. There should not be any unnecessary delay in returning the insulation to service.

Steam Traps — Annual inspection and cleaning of dirt pickets and expansion joints in every part of the steam system is essential.

Condensate Return System

Careful watch should be maintained on the temperature of the condensate returns. This is a true indication of steam trap conditions. Temperature of the returns is considered in order where it does not exceed 140° F. Low temperature returns, combined with a decrease in feed water make-up, are indicative of low temperature raw water mixing with the condensate. This cause may usually be found by a check of domestic water heaters, et cetera.

Prevention of Return Line Corrosion — Chemical treatment to prevent this condition is usually fed to the boilers, through the usual chemical pumps. The Ph* of the steam leaving the boiler is maintained at safe limits to provide the condensate with the required Ph value to offset corrosion.

Use of chemicals for this purpose should first be approved by those in authority. The danger of toxicity of steam coming in direct contact with food in the cooking process, or steam in contact with the contents of autoclaves or any other process is a matter of concern.

Feed Water Treatment

With respect to the cleanliness and protection of the *heating surfaces* of the steam generating equipment, there is no cure-all for every condition. Different classes of water and operating pressures require special treatment. Efficient and economical operation of the boilers depends on the attention given to the feed water tests and corrective chemical treatment. The advice and instructions of your feed water specialist should be followed to the fullest extent. Your monthly report on feed water tests and chemical treatment cannot be completed — unless the required tests are made. Tests on each shift are essential, with extra tests being made when conditions warrant them.

If your boilers are not equipped with continuous blow down piping, every effort should be made to install them. In this regard it is essential that heat recovery equipment be installed. Flash steam can be reclaimed by use of a flash tank with pipe connection to the plant low pressure steam main. The heat in the hot dirty water can be reclaimed by the make-up, resulting in a discharge to the sewer of cool blow down water.

Where de-aerating feed water heaters are installed special attentiton must be given to the venting of non-condensable vapours. Also it has been found that the make-up water consumption can be decreased by a careful check of heater drain valves, overflow valves, et cetera, against leakage.

Total Dissolved Solids (T.D.S.) — Boiler water blow down is a loss of heat or fuel, water and treatment. With properly adjusted treatment and blow down, satisfactory readings will be maintained. The recommended maximum readings will vary with each plant and water condition. Follow the limits recommended by your feed water treatment specialist.

More and more attention is being given to the steam purity. This is expressed in T.D.S. also Ph value. Steam purity tests are simple to take and if the testing equipment for these tests is not on hand, it should be obtained.

Dirty steam results in many troubles in the steam distribution and return system. Dirty boilers are not a credit to the engineer in charge. With proper chemical treatment and attention, boilers may operate for lengthy periods with clean heating surface. We start with clean water which becomes concentrated into sludge. Unless this sludge condition is controlled, the formation of solids will follow.

Hardness — Boiler Water (H) reading is a measure of the scale forming potential of the water tested. For boiler waters, this value must be maintained at zero at all times. It is expressed as calcium carbonate. This test is an important one and very simple to make. "H" reading or value is usually controlled by use of phosphates. They also serve to precipitate the scale forming salts as a sludge which, when properly conditioned, can be blown out of the boiler by means of blow down. Other chemicals are used for various purposes. Always follow the advice of your feed water specialist.

Prevention of Return Line Corrosion — Oxygen and CO^2 in the condensate return lines will cause corrosion when either is present. When both are present the corrosion problem is increased considerably. Most engineers are aware of this problem and its resulting maintenance costs.

De-aerating feed water heaters are a great aid in removing the non-condensable vapours from the feed water. Full dependence on these units is not advisable. Mechanical de-aeration ceases on flow from the heater. It is advisable to follow through in this regard with chemical treatment.

Where dissolved oxygen must be removed by chemical methods, sodium sulphite is added to the boiler feed water as a scavengering agent. It is recommended that injection of this treatment be made direct into

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*Acidity or alkalinity.

Hospital Fire Safety

A. Farrell,
Toronto, Ont.

THE hospital engineer is frequently appointed fire chief of the establishment. He is usually well suited for this rôle, particularly in the matter of regular checking of fire equipment and the periodic servicing of these items. The duties of a hospital fire officer, however, are many and varied, and all of these, when considered collectively, comprise a *fire procedure* which should work smoothly once the "starting mechanism" has been operated.

Fire Alarm

In assessing a fire alarm system it is important to decide exactly what is required regarding notification of staff. This is usually determined by the administrator and medical superintendent subject to approval, in certain instances, by the Fire Marshal's Office. Insofar as existing establishments are concerned, the engineer is usually best qualified to determine the technicalities of the system. I refer to: (a) the type of system, *i.e.*, closed or open circuit; (b) supervision of the system; (c) provision of automatic detectors; (d) standby power; (e) annunciation; and (f) connection to fire department headquarters. I repeat (this has been stated many times before) that an adequate alarm system is essential to the success of any procedure, because it provides the signal which puts the whole thing into operation. In a great number of instances the engineer is the person who will determine whether or not the system is adequate.

Staff Training

The training of staff is complementary to the provision of the alarm system. I have said that a fire procedure cannot be satisfactory without some method of notifying all available staff. Conversely the alarm system itself can only sound an alarm or alert; and the actions of the staff on hearing such a signal depend on the training they receive. A knowledge of the correct type of extinguisher to use on a particular fire is important only if the operator understands how the extinguisher should be used and its limitations. These points cannot be instilled in the staff satisfactorily merely by giving them the "30 second treatment"; they should receive adequate instruction by lectures, demonstrations, and actually extinguishing test fires. The local fire department will usually cooperate in this type of training.

Another aspect of staff training is in the evacuation of patients. Although this can be classed as a once-in-a-lifetime possibility, it cannot and should not be neglected. Movement of non-ambulatory patients to a place of safety is a problem which can best be solved by the medical and surgical staff, but the problem must be tackled before the need for the solution is required. Surprisingly this feature appears to have been given far too little attention—too few of the nursing staff I have questioned seem to have a clear understanding of what should be required of them in an emergency. Staff training is of such vital importance that it cannot be shelved or treated as being of secondary import. For this reason, staff training in a fire emergency should be incorporated into the basic training for hospital work. Staff members should not have to undergo this training in off-duty periods.

Maintenance of Fire Equipment

First and foremost it should be appreciated that the official fire service, as a whole, does not desire to see hospital staff undertaking fire-fighting duties other than those which would be expected of the ordinary citizen. Fire-fighting with large hose streams should be left to the municipal fire department. Small fires, however, should be extinguished promptly and efficiently. In order to do this it is necessary to utilize the equipment provided, *i.e.*, the fire extinguishers. This is where the engineer has a direct responsibility. The training of staff must include the correct method of using the fire equipment but, unless this equipment is serviced regularly, there is no guarantee that it will in fact operate satisfactorily when the occasion arises.

The following are a few general pointers which may be of some assistance:

2½-Gallon Soda-Acid—Class A. Fires

Annually: discharge, wash and check for corrosion. Test hydrostatically if corroded or damaged. Check hose for deterioration and stoppage. Re-charge. The annual discharge is important because the acid used (sulphuric acid) has a great affinity for water and will take up water vapour from the air space above the liquid level in the extinguisher, thereby reducing its efficiency.

Monthly: check to make sure it is full and undamaged. Check nozzle for obstruction.

Weekly: check accessibility.

2½-Gallon Foam—Class B. Fires

As for soda-acid, do not solder these extinguishers to carry out repairs. If they are damaged they should be discarded. Both foam and soda-acid should be tested hydrostatically once every five years.

Carbon Dioxide—Classes B. and C. Fires

Carbon dioxide extinguishes fires by smothering action, *i.e.*, exclusion of oxygen from the burning surface. The gas is stored in the extinguisher as a liquid at a pressure of 850 p.s.i. at 70°F. Very little can be done in servicing, therefore a visual check is all that is necessary for the monthly inspection. Check on accessibility and ensure that the lockpin is in position and the seal unbroken.

Semi-annually: weigh the extinguisher *less hose and horn* and record the weight on the tag. If the weight shows a loss of 10 per cent or more *of the CO^2 content* the extinguisher should be re-charged.

Dry Chemical—Classes B. and C. Fires

The extinguishing medium in this type of extinguisher is the dry powder which is essentially sodium bi-carbonate. The expellant can be air, carbon dioxide or nitrogen; in some cases a small gas cylinder is

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The author is instructor, Fire Marshal's Office (Ontario).

located on the outside of the extinguisher. In others it is positioned inside the body, and again in others the expellant gas is stored under pressure in the main shell with the dry chemical. This latter type is easily recognized by the small pressure gauge provided.

Annually: examine the chemical, if caked replace with fresh charge. Check gas cylinder and replace if there is 10 per cent or more reduction in the weight of the gas content. If of the pressurized type be sure that the pressure indicated is in the correct operating range. Check nozzle for obstructions. Discharge every three years.

Weekly: check accessibility, check lockpin.

Vapourizing Liquid — Class C. Fires

Extinguishers of this type are usually charged with specially treated liquids having a base of carbontetrachloride (C.T.C.) or chlorobromomethane (C.B.M.).

Six Monthly: check operation up and down, shake liquid from nozzle. Add liquid. Examine for corrosion.

Monthly: Check on liquid content. Add correct fluid if necessary.

Weekly: Check accessibility.

Pressure Type — (Vaporizing Liquid)

Monthly: Check for liquid content, fill if required. Check for corrosion. Check gauge pressure.

Weekly: Check accessibility. Check gauge pressure.

N.B. Use only correct extinguisher fluid. *Do not use water.*

Structural Features

Compartmentation of hospital buildings is frequently accomplished by installation of fire-resistive separation — these can be fire walls (party walls). It is undesirable for any breaks to be permitted in these but, when essential, fire-doors so provided must be kept closed. This also applies to stairwells, elevator shafts, dumbwaiters, and service ducts; doors to these *must* be kept closed at all times.

Separation should be provided for kitchens, workshops, laundries, and storage areas for combustibles.

General

The means of egress from a building is determined by the type of construction and the type of occupancy. For example, a rope or vertical pole can be considered adequate for agile persons such as sailors or firefighters, but would not be considered for aged persons.

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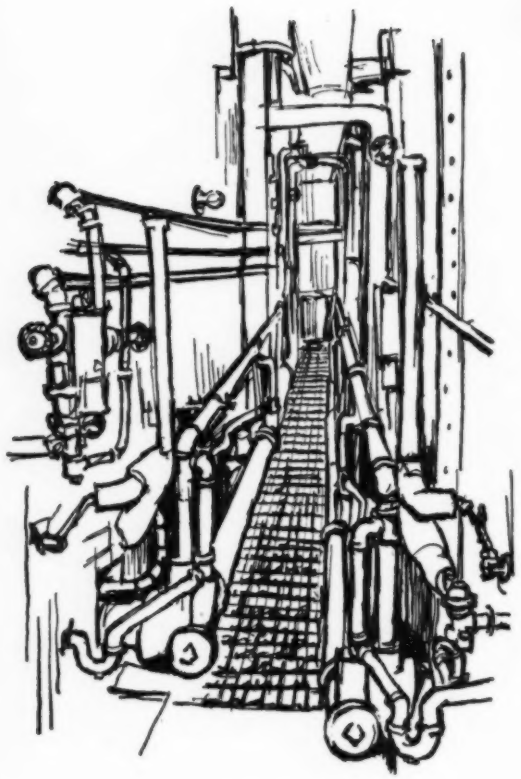
Moving departments during construction



M. B. Wallace,
Toronto, Ont.

IT would probably be rare indeed to find a hospital built say forty years ago which has not been altered, enlarged or converted to another, yet allied, health service during these intervening years. Not all but most hospitals begin in a small way. The odd few, because of financial good fortune, can begin as large hospitals. I propose to speak here of the experience most of us have had or will have.

First, let me say that it is folly to plan a public hospital just for to-day's needs. Nearly all Ontario communities have grown and most Ontario communities will continue to grow and therefore it is normal that the need for hospital care will increase. So the land area at the start should be more than generous. Purchasing later and expropriation proceedings are painful and costly.

There comes a point, however, where the board of trustees and the hospital officials must take a firm stand—dig in their heels and hold the line. That is the point where they must consider how much of this generation's money is to be spent for the next generation's requirements. It is unfair to sink too much of the financial effort of your present givers into the footings and foundations probably required 10 or 15 years from now.

If you view a number of hospitals which commenced operations over fifty years ago, you will note they are usually a conglomeration of buildings. Should you be versed in architectural history, you could point to each building as being the trend and concept of its own era or the manner in which they built in those particular days—tempered of course by the architect's desire to make new construction blend with the old.

But now, let us assume that the hospital officials have together reached a conclusion on how their available resources will be spent. The contractor is about to bring in his machinery and his organization. I take it for granted that the contractor has been forewarned that constructing an addition to a hospital and integrating it with the old is an effort of which there is little parallel in industry. All the vital services at present in use in the hospital must still be available every hour of the day, every day of the week. There cannot be shut-downs nor interruptions permitted where it affects the care of patients.

New construction must be so scheduled that water mains between the old and the new can be linked together with a minimum of interruption. At our hospital we have been doing this lately. Joint job meetings are held between the mechanical contractors and our own engineers. A time is set for the interruption—usually at nine or ten in the evening when most patients are sleeping after their evening care. The chief engineer of our hospital is given the responsibility of personally explaining to all those affected what is about to happen—the reason for it—and very precise directions where he may be found in case trouble develops. This is one occasion where the 8-hour day, 40-hour week goes out the window insofar as the engineers and maintenance staff is concerned, because the day staff starts turning up on the job about 9 or 9.30 p.m. With good planning, these important water, steam and electrical integrations can generally be made with a minimum of inconvenience. It is always a marvel and a delight to me to be welcomed with a smile the next morning by the chief engineer—shaved, dressed neatly, with no trace of the fact that he and his staff have been working in cramped, hot, greasy areas until about 2 or 3 in the morning.

Integration during construction is not to be taken lightly. Permit me to give an example from our planning at Toronto Western Hospital. In August or September of this year we will be living through one of these major integration experiences. Our kitchens are to be moved to a wholly new location. They are now located on the ground floor of the Pavilion Building and they are to end up on the ground floor of the new interns' building. Certain new equipment is being added but, in the main, the present kitchen equipment is to be moved and relocated.

Mr. Wallace is superintendent, Toronto Western Hospital, Toronto.

We have had our first joint job meeting. There was present the general contractor's senior superintendent, the mechanical people representing steam fitting and plumbing firms and the electrical contractor. From our side of the house there was the chief engineer, the dietitian and her assistant and a maintenance representative. The dietitian set out a schedule of what could be done without disrupting patient meal service as equipment is moved to its new location. It is the responsibility of the contractor to have all new items in place, connected, tested and in perfect working order before one transfer move is made. It is also his responsibility to check and be certain that all fittings are preassembled and on the job.

Our chief engineer is in the midst of tagging and making an inventory of each item to be moved. He has already had the manufacturers and suppliers set out in detail the degree of dismantling required and, where he deems it advisable, he will arrange with the manufacturers' technical men to be present to get the unit back into operation quickly. He has checked clearance widths and heights and the elevators' capacity to move the items up or down safely. He knows already that two walls must come down and some normal sized doors changed to double doors before we start the job.

Already our dietitians have figured out their menus for these five days in question so that there will be no appearance or evidence of confusion.

I hold in my hand the lists of sequence of events on the first day and up to the fifth day. It is a big job but it is not one that alarms or frightens us for it is being tackled in an orderly fashion.

One very ticklish integration job is the synchronizing of old and new air conditioning systems. I am sorry that hospitals do not have the funds to do more air conditioning. Some areas are a must. Corridors and inner rooms get the first call on our available funds. Operating rooms and any areas where there is a concentration of a number of people doing exacting jobs under strong lights for extended periods have a high priority. On rare occasion small air conditioning systems can be scrapped and replaced by larger central ones serving many areas, but it takes a bold and brave person to make this decision. Most new office buildings being constructed to-day enjoy mechanical cooling. A number of people get accustomed to walking into a hotel room now-a-days and dialing for the temperature they personally enjoy. It would be nice if hospitals could provide this, but when there is so much pressure on, we are all probably under the necessity of making two dollars do the work of three.

Now if you would translate our experience into a plan that would fit your own situation, this is what you must do:

1. Begin your planning in plenty of time. (March for August or September).

2. Enlist the support of all who will likely be brought in on it.

3. Hold job meetings with your contractors, your engineering staff, your carpenters, your dietitians and your administration heads.

4. Make these formal meetings and write down your decisions and distribute them to everyone.

5. Have the administration of the hospital accept the responsibility for co-ordinating all these technical divisions. ■

Control of Infection

(concluded from page 43)

since this is where a patient is most vulnerable to infection. In all of these areas there is one factor which should be emphasized, that is, using the nursing service as consultants with regard to setting up policies and procedures of aseptic and isolation technique that the engineers and maintenance men should follow in the various areas in the hospital. They can also be brought into the job training programs and provide invaluable assistance in aiding you with the technical data that you may require.

Engineer's Rôle

There are many areas which the chief engineer must become thoroughly acquainted with and, in fact, act as a technical advisor to the administrator. Some of these areas are (a) air conditioning, (b) sewage, (c) drainage, (d) autoclaves, (e) ventilation, (f) water supplies. These are not by any means in order of priorities, nor do they include the whole field with which the engineer must be cognisant to play his important rôle on the infection team.

There are many more items which can be discussed. However, I do not wish to enter into technical discussions. To summarise briefly, I have attempted to provide you with the broad view of infections in hospitals. We have examined some of the background regarding infection and its transmission, some of the concern regarding present techniques in hospitals, and due to this, the concern felt by hospitals in coping with individual problems.

I hope that I have conveyed to you the importance that I place on the engineering department and the necessity to bring it in as a full partner in the control of infection. ■

Departmental Co-Operation
(concluded from page 37)

plant from every angle. In fact, a vast number of our problems are solved by the engineering department.

Because we are so dependent upon engineers, and they are such strong-minded individuals, they have a tendency to think this is their world. Their abrupt and often defiant answers make many a supervisor breathless and determined never to call upon them again. There is probably no more harassing situation for an administrator than the position of referee between two department heads. When I hear "I'll never go to the engineers again" or "if an engineer comes in, I'll walk out", there seems to be no alternative but to resort to St. John's favourite exhortation, "Little children, love one another".

The chief engineer, or chief of any department, has a two-fold personnel relations responsibility. Within his own department, he must set up means of communication between his workers and himself. It is his duty to develop a feeling of security and belongingness for each worker no matter what his status may be. His job assignments must give to each one an opportunity for job satisfaction and self-development and within his whole department he will stimulate an appreciation of co-operation—the rôle that each one must play if the department is to accomplish the task for which it is responsible.

Then it is the chief engineer again who must create lines of communication between his department and the other departments in the hospital. He is responsible for giving to all other department heads a feeling of security, of being able to find in the engineering department the assurance of control, maintenance, and assistance relating to all the intricate equipment and services which come under its surveillance. The enumeration of these responsibilities gives the impression of a tremendous task. In reality, however, much of this is accomplished by following the Golden Rule—"do unto others as you would have others do unto you". We all find life's problems so much simpler when someone listens patiently to these problems and gives us the solution within his power.

No matter what day you pick up a newspaper, you read about strife within nations and strife between nations. A hospital is a miniature world comprised of many department-nations. These are all as diversified in occupation, philosophy and principles as nations in the total world can be. When they are considerate of each other, work together and assisting one another, they create a peace-filled, happy world for their suffering fellow citizen, the patient, who relies entirely on them for his well-being. ■

Illustrations by Geraldine Jephcott.

Hospital Fire Safety
(concluded from page 49)

The National Building Code of Canada requires that a horizontal exit shall constitute one of the required exits from a hospital floor which presupposes that the building is compartmented by fire walls. It has already been stated that doors to stairwells and corridors should be kept closed at all times. This fact is of such importance that it will bear repetition; only by this means is it possible to control the horizontal or vertical spread of fire and/or smoke.

Exterior fire escapes can only be considered as a last resort when there is no alternative and, unless they are properly constructed, can constitute a definite life hazard. There are numerous cases on record where fire escapes have been enveloped in fire on account of windows located beneath the stairway being broken by the fire, effectively preventing the escape of the occupants. One such incident was the Iroquois Theatre in Chicago.

The provision of adequate means of egress should be given priority over all other considerations, and as this is a specialized field the services of the Fire Prevention Division of the local municipal fire department should be utilized. It is important to realize that the recommendations arising from the inspection are not made with the intention of embarrassing the administration, even though it may appear to the layman that they are somewhat severe. They will be concerned with: (a) additional means of escape, where required; (b) adequate smoke-stopping of the existing facilities; (c) fire separation and compartmentation of the building where the construction is of the type that will permit carrying out such work; (d) alarm system and mobilization of staff; (e) fire procedure; and (f) fire protection equipment. ■

Staff Training

Sr. Mary Frederick,
R.P.Dt.,
Toronto, Ont.

Food Service
sponsored by the
Canadian Dietetic Association

IN the food service department we have quick mixes and instant products; but we have no ready made answers to the problems involved in staff training. The application of principles must be made on an individual basis.

Management should set the stage for training programs in the food service department by giving inspiration, enthusiasm and support. To be productive, a training program requires that the dietitian be primarily responsible. Let us ponder these words —inspiration, enthusiasm and support. We know that no man can give what he does not have. Do we need to stir up the embers of our own inspiration and enthusiasm in order to give our full support to the training of our workers? What is our attitude as dietitians to our workers and to our work? You will notice that I put the worker before the work, even though one of our major tasks is food production. In Canada, at the present time, each of us holds dearest, the true liberty and the authentic dignity of the human person. Do we as dietitians respect our employees as individuals, with certain needs and personal differences? I am sure you have often observed that on many occasions in training, an attempt is made to teach only skills. Such an approach can be most disappointing in results for it is unlikely to produce happy, well adjusted and valuable employees. Making the most of the human resources at our disposal is a major responsibility. We must be convinced that people are important in the universe. People are more important than getting the job done, more important than administrative practices or rules. Regulations must be tempered and modified by understanding human feelings and acceptance of the individual.

Our Work

Do we appreciate the fact that our work gives us the opportunity to develop in ourselves, and in our staff, our God-given intellectual and womanly talents and to use these as well as our physical strength permits in the service of others? In our hospitals, we should never forget that the chief purpose of our work is the feeding of sick people and the personnel who are engaged in the work of caring for the sick. We must look upon ourselves as instruments of service. We must do everything in our power to improve our work so that we may be able to give better service to those who depend upon us and who respect us because of our unselfish devotion. Are we always prepared to devote ourselves to the good of others? Are we and our employees generous, calm and patient, remembering that none of our actions are in vain if we perform them for the love of God and of our neighbour? We must continue to lead our staff along the way of service which we have chosen and derive encouragement from the progess we have already accomplished. I have elaborated on these points at some length so that we may have the inspiration and enthusiasm necessary to support the arduous program of training.

Who are we to train?

Keep in mind that training starts at the top. What about your own continuing education? Are you taking the advantage of the program offered for increase in your knowledge?

Are you regularly and consistently doing professional reading? Do you subscribe to the dietetic journals, the journals published by the restaurant and hospital associations? Do you make it a practice to apply the knowledge and the ideas in your own department? Do you keep an open mind and an alert eye for new ideas, better methods? Do you take time to evaluate your own operation? Do you think constructively of the needs and problems in your kitchen? Do you plan for better methods? Let us examine our past conduct and then resolve to outline a definite plan of action to train ourselves to be better administrators.

Next, assistant dietitians and supervisors are in need of training. Supervisory development must come first. One writer has pointed out that anyone with responsibility for one or more employees must know how to train if he or she is to do the job properly. Training is a day-to-day process. We must develop a functioning supervisory system. Key people can be trained to assume supervisory responsibility. We must think of supervisors not as policing, but as teaching, stimulating toward better performance and the development of individuals. Job training is more than just teaching a worker a skill, to make a beautiful salad, for example. It includes helping the employee to adjust to new surroundings, giving him some knowledge of the organization of which he is a part and the particular place he has to fill in it. You cannot expect cooks to produce high quality food unless you, the dietitian, set the standard and train them to cook for quality—to serve the best to our patients and to our customers.

Supervisors

Let us consider the major responsibilities of a supervisor. A supervisor needs to understand the organization of the department; how each person fits into the over-all picture. She needs to get the work done and must be able to give directions that are clear and specific, co-ordinate the work of the department so that time schedules are met, with control of supplies and labour. The work must be planned and scheduled and deadlines and emergencies must be met. Improving work methods requires the ability to evaluate present methods and to develop improved ones. Developing the potentialities of staff include the selection of the right person for the job, determining the training needs and making provision

(continued on page 78)

The author is director of dietetics, St. Michael's Hospital, Toronto, Ont. From an address given at the Dietetic Institute held in Toronto, in April 1960.

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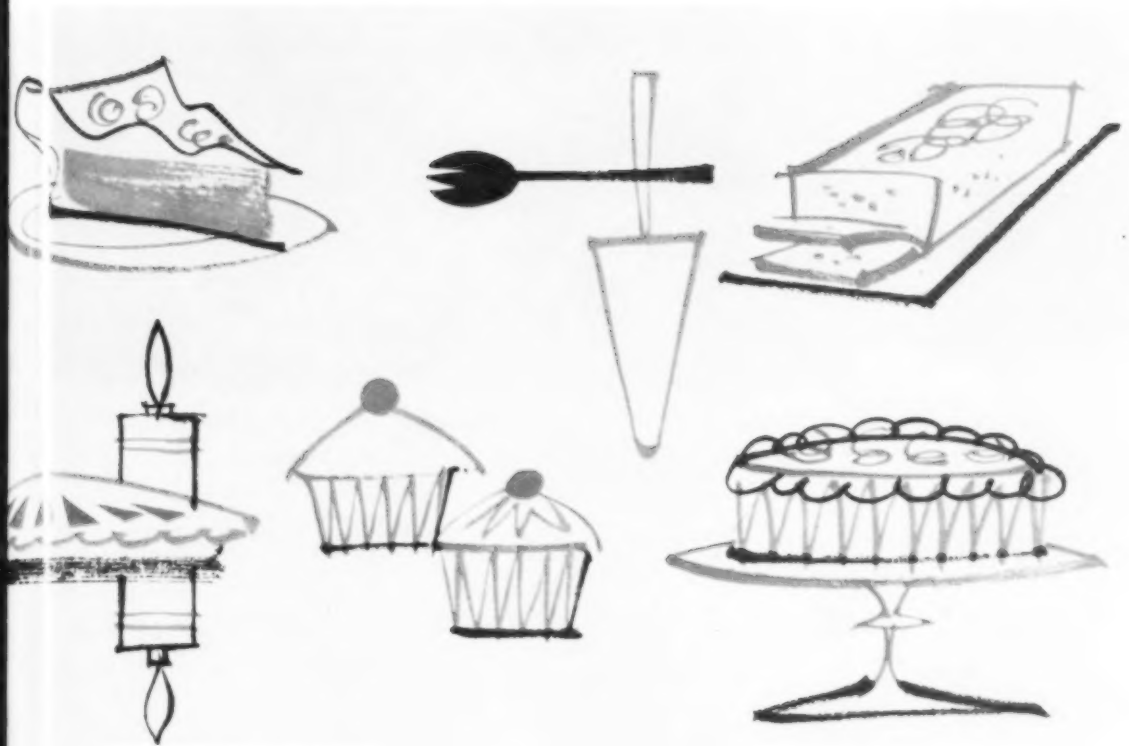

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Western Institutes

Hospital Laundry Operation and Management

Conducted by the provincial associations in co-operation with the Canadian Hospital Association

Saskatchewan

Laundry institute attendants in Saskatchewan were: Wilfred Bird, Rosetown Union Hospital; Louis A. Chouinard, St. Joseph's Hospital, Gravelbourg; F. Fisher, Saskatoon City Hospital; Jacob Hoffman, Regina Grey Nuns' Hospital; Lucy Hughes, Mankota Union Hospital; Celestine Jackson, St. Walburg Union Hospital; M. Lester, St. Paul's Hospital, Saskatoon; Steve Lojek, Notre Dame Hospital, North Battleford; George Mengel, Regina General Hospital; Esther Nelson, Melfort Union Hospital; Norman Scott, Moose Jaw Union Hospital; Z. St. Jean, St. Margaret's Hospital, Biggar; Frank Smithson, Yorkton Union Hospital; Sister Eugene and Sister Agnita, St. Joseph's Hospital, Estevan; Sister Germaine Roussel, St. Paul's Hospital, Saskatoon; Sister Albertine Landry and Sister Marie Leonie Boivin, St. Therese Hospital, Tisdale; S. Hindricks, Saskatoon Sanatorium; Sister Marie Irene and Sister Philippine, St. Elizabeth's Hospital, Humboldt; Sister Rose Boulet, Regina Grey Nuns' Hospital; Sister Martha Marie, Holy Family Hospital, Prince Albert.

Manitoba

Laundry institute registrants in Manitoba were: K. Beadry, Morden District Hospital; M. Blocka, Hospital of Mental Diseases, Brandon; F. G. Brown, Hospital for Mental Diseases, Selkirk; R. V. Coulthard, Grace Hospital, Winnipeg; Annie Dixon, Killarney District General Hospital; Elsie Dyck, Morris General Hospital; Helen Dyck, Carman Memorial Hospital; Susan Enns, Bethesda Hospital, Steinback; Tina Enns, Bethel Hospital, Winkler; E. E. Gonpf, Minnedosa District Hospital; Georgina Green, Hamiota District Hospital; M. Groteau, De Salaberry Hospital, St. Pierre; C. Hering, Dauphin General Hospital; Retta Hill, Neepawa District Memorial Hospital; S. Houston, Winnipeg Municipal Hospital; Elizabeth Lyons, E. M. Crowe Memorial Hospital, Eriksdale; A. Meseyton, Portage District Hospital, Portage la Prairie; Jennie Morgan, Fox Memorial Hospital, Carberry; Isabel Murphy, Selkirk General Hospital; G. A. Reid, Virden District Hospital; Jack Rodwell, Manitoba Sanatorium, Ninette; Adele Savage, Riverdale Hospital, Rivers; Robert Seguier, St. Boniface Hospital; Louise Smith, Victoria South Norfolk Treherne Hospital; L. Sprowl, Manitoba School for Mentally Defective Persons, Portage la Prairie; A. Townley, Winnipeg General Hospital; Mrs. Van Achte, Lorne Memorial Medical Nursing Unit, Swan Lake; A. Voetberg, Siglunes Medical Nursing Unit, Ashern; Albert Withers, Children's Hospital of Winnipeg; W. Wozney, Brandon General Hospital; Sister M. Bonaventure, Sacred Heart Hospital, Russell; Sister Jeanne Celine, St. Claude Hospital; Sister Justina, Arborg; Sister M. Melania, Johnson Memorial Hospital, Gimli; Sister M. Pauline, Crerar Hospital, Winnipegosis; Sister Remillard and Sister Saint-Severin, Flin Flon General Hospital; Sister Tougas and Wm. Pokrant, St. Boniface Sanatorium.

British Columbia

Laundry institute participants in British Columbia were: D. Anderson, Provincial Mental Hospital, Essondale; Leonhard Balmer, Royal Inland Hospital, Kamloops; Paul Bordeleau, St. Joseph's General Hospital, Dawson Creek; W. K. Britton, Coqualeetza Indian Hospital, Sardis; Colman Collins, King's Daughters' Hospital, Duncan; Frank Cox, Workmen's Compensation Board, Vancouver; C. W. Drake, St. Mary's Hospital, New Westminster; Roy Dillon-Davis, Nanaimo General Hospital; Roy Gillespie, Royal Columbian Hospital, New Westminster; E. W. Holborn and John Glenwright, B.C.H.I.S., Victoria; S. Hechter, Trail-Tadanac Hospital; Glen Hughes, Maple Ridge Hospital, Haney; Robert Johnson, Langley Memorial Hospital, Murrayville; J. Krossa, Chilliwack General Hospital; Vernon Knowles, Surrey Memorial Hospital; Peter Kramer, Providence Hospital, Fort St. John; Maron Kulynych, St. Paul's Hospital, Vancouver; Peter Maslyk, Vernon Jubilee Hospital; A. E. Openshaw, Kootenay Lake General Hospital, Nelson; Frederick Owens, West Coast General Hospital, Port Alberni; Anton Schmidt, Kelowna General Hospital; Frank Siba, St. Joseph's General Hospital, Comox; Wm. R. Waddell, Grace Hospital, Vancouver; J. R. Boileau, St. Mary's Hospital, New Westminster; Mildred Empey, R. W. Large Memorial Hospital, Bella Bella; Sister Flaracita and Sister Francis Xavier, St. Vincent's Hospital, Vancouver; Madeleine Houghton, Shuswap Lake General Hospital, Salmon Arm; Muriel M. Johnston, Campbell River and District Hospital; Olive M. Laird, War Memorial Hospital, Williams Lake; Vivian Morrison, St. John Hospital, Vanderhoof; O. Reavie, Powell River General Hospital; Astrid M. Rosengren, Cedarhurst Private Hospital; D. M. White, Penticton General Hospital; Gladys Wish, Princess Margaret Children's Village, Vancouver.

Alberta

Attending the laundry institute in Alberta were: Sister Mary Albert, Mineral Springs Hospital, Banff; Sister Mary Esther, St. Joseph's Hospital, Barrhead; Hubert Sojak, Baker Memorial Sanatorium, Calgary; Dagny Dyrholm, Bethany Chronic Hospital, Calgary; W. P. Pearson, Calgary General Hospital; Kenneth B. Burton, Colonel Belcher Hospital, Calgary; Ellen M. Lawrence, Rosehaven Hospital, Camrose; Gladys Stasco, St. Mary's Hospital, Camrose; John H. Hartt, Aberhart Memorial Sanatorium, Edmonton; Donald Irving, Edmonton General Hospital; Ralph Brown, Royal Alexandra Hospital, Edmonton; H. Gerdes and R. Brost, Charles Camsell Hospital, Edmonton; A. C. Duncan and J. W. Smith, Misericordia Hospital, Edmonton; Kurt H. Wieburg, Provincial Mental Institute, Edmonton; Sister Mary Bernadine, Sister Mary Angelica and Harry Olenko, St. Joseph's Hospital, Edmonton; G. Demro, University of Alberta Hospital; Sister H. Lamothe and Sister M. Reansbury, St. John's Hospital, Edson; Lucille Spencer, Elk Point Municipal Hospital; Sister Mary Sylvain, St. Catherine's Hospital, Lac La Biche; Stanley Wilchak, Archer Memorial Hospital, Lamont; Diethelm Kruger and Sister Loretta Maria, St. Michael's General Hospital, Lethbridge; Steve Sorochan, Medicine Hat Municipal Hospital; Sister Mary Rose Helene, St. Vincent's Hospital, Pincher Creek; William Mullan, Provincial Mental Hospital, Ponoka; Dora Homik, St. Joseph's Hospital, Radway; Roland Robert, Deerhome Hospital, Red Deer; A. M. Wood, Provincial Training School, Red Deer; Sister Yvonne Laforge, St. Joseph's General Hospital, Vegreville; Rose Harle, Vermillion Municipal Hospital.

A Philosophy of Trusteeship

Frank S. Groner,
Memphis, Tenn.

TO develop a proper philosophy, one must investigate the facts and principles of reality and of human nature and conduct. In order to transpose this to a question of hospital trusteeship, one must first of all consider: (a) What is the corporation? and (b) What is the hospital?

The corporation originates from the ideas of a group of men or, perhaps in some instances, from the ideas of a single man. These ideas naturally should be directed to a purpose—a purpose that is viable, capable of growth and compatible with social interest. Based upon such a definite purpose, the ideas become the realized corporation or institution and the men or man who furnish the ideas are a vital and essential part of it. The democratic system is based on capitalism—he who furnishes the capital becomes the owner. Therefore, the ideas and the resources of capital form the essential basic structure for the corporation or institution. Thus we have the starting point—out of the combination of ideas (purpose) and capital.

The next question arising is: Who shall be responsible for the continuation of the institution? To whom can the continued well being of the institution be entrusted? From questions of this nature is born the necessity of trusteeship and the concept of trusteeship implies ownership responsibility. Trustees, then, are those men who are responsible for the continuation and further maturing of the ideas that underlie the institution, as well as for the wise and sound use of the capital necessary to bring to realization the basic and philosophic ideas.

New we must ask: What is the hospital? The major part of the definition of the institution that we have developed above would apply to the hospital. However, there must be refinement. This refinement lies in the area of specification of the particular kind of corporation or institution that the hospital might be. This specification is social, connoting every person within the community and having the rendering of service as a motive of paramount importance. "Social" seems to be of increasing significance in our life today. More and more a social philosophy seems to be prevailing over particularism, over selfish motives and business concepts that militate toward profit outside the context of service. In fact, there is the point of view that business leadership, once the dominant element in the shaping of our society, has been replaced by a leadership that is furnished by the intellectual and the politician. These people have now taken the initiative in shaping our world and this is true because they have given direction to the social philosophy of life. This is what I wish to emphasize—if social philosophy is of ascending importance in the affairs of men in general, the status of the hospital as a social institution should be without question.

That the hospital is a social institution catapults us rather dramatically into a consideration of one of the primary characteristics of the hospital trustee, the characteristic of social consciousness. The hospital trustee, then, should be a person with a social viewpoint, one who is interested in the over-all welfare of the community.

This understanding most readily springs from the liberally educated man. The liberal education—be it formally or empirically acquired—leads the person to think clearly and independently and to acquire habits of mind that make him flexible and resourceful. A liberal education is a vital factor in achieving the ideal of social consciousness which is so necessary for the trustee of the social institution such as the hospital.

There is also the question of power (or authority). In any organization it is necessary that there be a hierarchy. It is an axiom of organization that power must be concentrated. This concentration resides in ownership and since ownership is represented by trusteeship, it may be then said that power rests in the trustees. The exercise of this power produces a result. The result then is the valid criterion of the quality of trusteeship. Since it is axiomatic that power resides in the board of trustees representing ownership, and such a principle is compatible with a capitalistic system, the real point then centres in the result of power and not the location of power. In other words, the crux of the matter is the effective use of power. The heart of the question is then—How can the power of trusteeship be used to produce the greatest good?

We all agree that a board of trustees is responsible for policy. This means charting the course of an organization. We also subscribe to the principle that it must delegate to the administrator authority to carry out policy. This means directing the course. The difficulty arises, then, in distinguishing between policy making and administration.

A board of trustees cannot carry out every detail nor can it exercise all the many ramifications of responsibility. It is self evident that power must be diffused and that responsibility must be delegated. The lines of demarcation create problems and frequently conflict. In efforts to delineate power, or authority, the patterns that result are not infrequently lacking in uniformity. In many instances, what generally occurs is that practices between the trustees and the hospital personnel come to a particular level through a custom that time shows to be mutually acceptable. Operating management often tends to obscure the board of trustees and to relegate it to a comparatively inconsequential rôle. This danger seems to characterize industry more than it does the hospital field. In the hospital field, it is sometimes found that the board of trustees, or more often an individual member of the board of trustees, will inject themselves into levels of the organization below that of policy making. This represents an incursion into an area that probably should not be in the purview of the board. For it deprives the administrator of certain internal power which rightfully belongs to him. It also limits the value and productivity of second and third level management.

Admittedly, we are all aware of

Mr. Groner is the president-elect of the American Hospital Association. From a paper given at the Trustees' Section of the Ontario Hospital Association convention, held in Toronto, Ont., October 1959.

what is referred to as participative management and the value that comes from it. Yet I would like to raise this question: Should the board member participate in these internal evaluations? Can not the board members participate in policy making and then require reports on the execution of those policies, having full right to criticize the reports and demand the proper execution if there have been shortcomings? Would this not be sufficient for him and for his proper rôle? It seems so. Let us remember that in the concept of participative management there must be areas for all and if the trustee advances internally too much, then he has precluded participative management for the administrator and other key personnel of the hospital. Is not the member of the governing body also diluting his value to the institution?

Freedom makes for development. It sets forth the consideration that management or government (equating within our frame of reference to trusteeship) should provide encouragement—but not interference. Trusteeship should advise and criticize but never bind the one who should perform the given task by doing it instead of him.

In today's organizational life, there is great concern over the individual losing his identity in the organization. Hierarchical structures are viewed as a menace to personal freedom. The pyramids of authority are so unwieldy as to obscure and oppress the individual. There seems to be only one alternative to combat this menace and that is to find areas within the organization for individual freedom. If these oases are healthy for the organization, let us be reminded that they can exist only through the will and wisdom of those who serve as trustees. For the hospital to be a healthy organism, the psychological needs of its personnel must be met. For these needs to be met, there must be an understanding on the part of the trustees of the need for freedom for the administrator and department heads so that their skills can be used.

It would be understandable for the trustee to say that he could not grant this freedom, for to do so would be to relinquish his responsibility. This would be true if the trustee were a person seeking recognition. The answer to these objections may be that:

1. It requires a sense of risk and courage to be a trustee of the highest calibre.

2. It requires an intellectual and philosophical adjustment that the growth of the institution is of much greater importance than the trustee's performance in an assignment of executive detail.

A sense of risk and courage are necessary in order that the greatest advances can be made. These attributes are assumed by men who make the greatest contribution. The person of liberal education, who contributes creatively through ideas, will find a lasting satisfaction in the job of trusteeship well done. Courage requires a degree of risk. To take risk is a means of expressing faith in one's fellow man, and such faith challenges the best from the person in whom the faith is placed.

One needs also to be aware that in the modern hospital persons of skill, training and ability are necessary at the various levels in the organization. They have much knowledge of their specialties. Hence, for the hospital organism to be viable and developing, the administrator must be able to pass on a measure of freedom that he receives from the trustees to these persons of special skills.

The development of any virile organization is dependent on the effectiveness and stature of the group which holds ultimate authority. For a hospital to reach its potential, the board of trustees must afford able and dynamic leadership. To assume this to the greatest degree, the principle of democratic ferment should be applied. That is to say—provision should be made to include new board members from time to time. Such a provision brings new ideas which are tested and mixed with past ideas. Trustees should have varying backgrounds, making available to the organization the knowledge, viewpoints and philosophies of many disciplines. Limitations on who can serve as a trustee should be minimized so the best qualified individuals may be available.

The development of this philosophy obviously places added responsibility on a board of trustees and should provide a great challenge for it. It places on the governing body the responsiblity for continuity of the institution. This means a need for periodic examination as to the purpose of the hospital. Is it being attained? What are the trends of the time in the hospital field? What should the trustee's hospital do as a result of these trends? In addition, the board must select an able administrator and constantly review top level management. It must also make a continuous evaluation of the over-all effectiveness of the institution.

In taking a fresh point of view of the board-administrator relationship, we should strengthen the organization. By using to a greater extent the abilities of the trustee and undergirding the administrator, we are in reality moving toward our ultimate goal—which we cherish so highly—providing for our people the finest health care ever made available in the history of man. ■

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It's a fact, of course, that modern methods and machinery save a great deal of physical labour. But how much? For the first time this saving in energy has actually been measured—and in relation to building maintenance work. The measuring has been done by Professor E. A. Müller of Germany.

Professor Müller found, for instance, that one-third less energy is required to mop a floor with a long handled mop than by the old-fashioned "hands and knees" method.

Measurements were made with a photoelectric pulse counter developed by the Professor. Worn at the back of the neck during tests, this ingenious device registers the pulse count of the subject, enabling scientists to calculate the physical stress involved in any work.

Some other results of the tests:

- Waxing on hands and knees produced a pulse count of almost 500. Paste wax applied with an applicator registered less than 400, while a liquid emulsion wax dramatically reduced this count to 120.
- Hand polishing registered a count of 300 but was drastically reduced to 100 when an electric polisher was used.
- Sealing of floors saved two-thirds of the work needed for cleaning because the seal closed the pores and thus shut off the gathering points for dirt. The pulse method showed a count of between 800 and 900 for cleaning sealed floors, while identical cleaning methods on unsealed floors produced a pulse count of 2500.

The moral? Keep up to date in maintenance methods and machinery and make the job easier.

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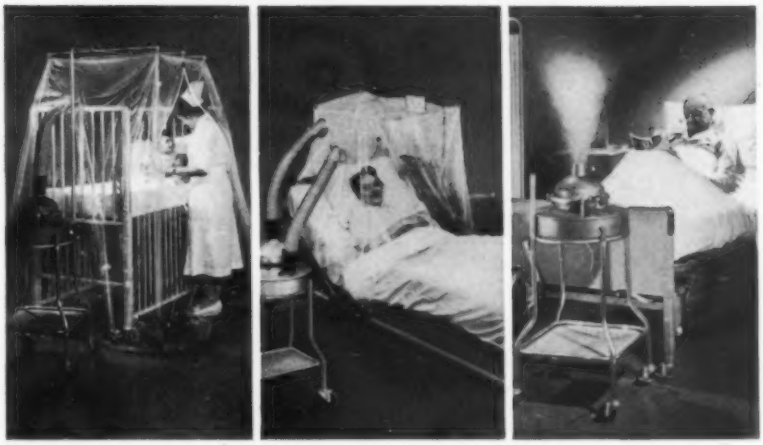

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Book Reviews

HOME GUIDE FOR THE DIABETIC (based on "A Concise Handbook as used in the Leicester Royal Infirmary Diabetic Clinic"). Published by Iliffe & Sons Ltd., London, England, 1960. Distributed in Canada by the British Book Service (Canada) Ltd., Toronto, Ont. Pp. 30. Price $.85.

If diabetics look after themselves, and this means self-discipline, they will be able to lead normal and active lives. This booklet will help them to understand what they have to do; and if they follow the instructions given conscientiously, unnecessary complications will be avoided.

General guidance is given, such as the method of giving insulin injections, hygiene for the diabetic, social service arrangements and general principles of nutrition. There are further sections on alternative food values, a special list of foods with low caloric value, recipes, weight reducing diets and a list of proprietary names of medical supplies.

SOCIAL SCIENCE IN NURSING by Frances Cooke Macgregor. Published by Russell Sage Foundation, 1960. Pp. 354. Price $5.00.

This book deals specifically with an experiment at Cornell University—New York Hospital School of Nursing undertaken by the author whose purpose was to demonstrate the immediate usefulness of the social sciences to the clinical practice of nursing. From the vast array of questions of a behaviourial nature that nursing now has before it for exploration, Professor Macgregor chose those which she believed would lend themselves most readily in the limited time allotted to profitable classroom discussion related to actual clinical practice.

In the introduction, the author stresses that the social sciences can make important contributions to the improvement of patient care. The book is divided into three parts: one, a discussion of the rationale for incorporating the social sciences into nursing; two, a description of the experiment in adopting a social science course in nursing education and the resulting effects on nursing and the care of patients; and three, a discussion of some of the problems encountered in the converging of the social sciences and the nursing profession.

At the end of chapter one, Professor Macgregor, in discussing the value of the "sensitive" or "good" nurse, says "Sensitivity to patients and their needs, . . . is a specially trained awareness of human behaviour based on a fund of knowledge that is *scientifically sound.*" But in chapter two, the writer goes on to say that any attempt to define the social sciences, in this case, the behaviourial sciences, sociology, social psychology and cultural anthropology, is hazardous, and that because of the kinds of problems with which they deal, the social sciences have sometimes been regarded as less scientific than the natural sciences. There are some, the author states, who believe that human behaviour does not lend itself to systematic inquiry or the formulation of general laws. She continues, "The fact is that the study of social phenomena requires the same scientific approach and methodology as the study of natural phenomena. However, since the social scientist is working with human variables, his task is frequently more difficult. Unlike the natural scientist who can often work in a laboratory, control experiments, and measure variations, the social scientist is seldom able to put human groups under laboratory control. Yet in spite of the difficulties involved in controlled experiments and in working with intangibles, there is no fundamental difference in attitude and basic approach between the social sciences and the natural sciences. Both are concerned with knowledge that leads to *understanding.*" The reviewer has reflected that this last statement might apply to all research connected with the humanities which protest no claim to scientific validity. It also should be noted that the difficulties encountered in working with intangibles are not mitigated by the fact that the basic approach to a study, might be the same as that of the natural sciences, which the author claims, in comparison with the social sciences, present differences *only* in emphasis and in the subjects upon which they focus attention. Professor Macgregor continues, "Both the natural and social sciences are objective and empirical. Having as their aim the search for regularities, both employ the same methods . . ." In speaking of the social psychologist's methodology and technique, one being the case history, Professor Macgregor reveals, "With this method detailed material is collected on the life history of an individual, the premise being that to understand his personality and behaviour one must have knowledge of his past life experiences. Projective techniques, aimed to diagnose hidden and unconscious regions of the personality, . . . are also utilized by social psychologists in their studies of personality. Among these are the Rorschach (or "inkblot") Test, Free Association tests, and the Thematic Apperception Test."

It would seem that there is no reason to doubt that the social psychologist in league with the sociologist and anthropologist, have made contributions to the treatment of problems of human behaviour under stress, for instance in the field of the physically handicapped or in social problems of health and illness in the family, community and industry. However, to this reviewer, it seems that it would have been better for the author to dispense with vindicating the study of social science in nursing on the grounds of the scientific validity of the behaviourial sciences. — *G.J.*

A NURSES' HANDBOOK FOR HOSPITAL, SCHOOL AND HOME by Lyla M. Olson. Tenth Edition. Published by W. B. Saunders Company, 1960. Illus. Pp. 548. Price $4.50.

In the preface to this compact book it is stated that the preparation of the present edition has been undertaken in order to embrace the many recent developments in the expanding field of medical knowledge that are of practical application. Concepts of treatment and medication have materially changed in the past few years and on the basis of these advances, the tenth edition has been subjected to a complete revision. Some subjects have been presented in greater detail and a stronger emphasis has been placed on problems of various kinds with new topics added. The author has made ex-

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tensive use of the material contained in her *Prevention, First Aid and Emergencies* and her *Improvised Equipment in the Home Care of the Sick, Fourth Edition.* As well, the newly revised *Manual of the Nursing Arts* of the Methodist-Kahler School of Nursing has been drawn on for items of nursing procedures. In addition, the tenth edition embodies many suggestions received from educators, graduate staff nurses, private duty nurses, and practical nurses so as to adapt this work to their needs.

The result is the production of a work of encyclopaedic range and should be an indispensable adjunct to the equipment of a nursing team at all levels of service.

YOUR HEALTH AND YOUR WEALTH by A Doctor. Published by the Macmillan Company of Canada Ltd., 1959. Pp. 139. Price $1.30.

This book is an examination and appraisal of the National Health Service in Great Britain. The author considers this Service as "the biggest boon granted to humanity by civilization", but he feels some criticism is also warranted to help to construct.

The effect of the National Health Service on the modern family doctor is discussed—now "the forceps and scalpel are replaced by the pen and prescription book." Much emphasis is placed on the danger of over treatment and the lure that hospitals hold for many people. Examples are liberally given, many of a humorous nature.

The development of the Service is traced and some suggestions are made for the improvement of the present Service. Above all the fact that the Service should be used in moderation is stressed and the need for the reversal of the modern line of thinking, for, the author states, "in our state of society to-day, a doctor is the cheapest and most easily available commodity." Some advice is also given on the maintenance of good health and the treatment of some of the everyday illnesses.

The light and easy style in which this book is written makes it entertaining reading. It is also informative without being too technical.

AT YOUR BEST FOR BIRTH AND AFTERWARDS, by Eileen Montgomery, M.C.S.P. Published by the Macmillan Company of Canada Ltd., 1959. Illus. Pp. 59. Price $.95.

Written primarily to assist expectant mothers, this book is clearly set out. The first section is an introductory survey, mainly explanatory. This is followed by the preparation — posture, poise, relaxation, breathing control and general exercises before birth. The application of these is given during birth and the final section deals with restoration to full activity and well-being after the birth.

Diagrams show mainly positions for the various exercises and as such are easy to follow.

This book is an excellent guide for the expectant mother for, as the author says in her preface, "Beforehand, the prospective mother should be made aware of what sensory and visible milestones she may encounter at the beginning and throughout the three stages of labour, and of the ministrations that are likely to be carried out as a routine by the midwifery and medical attendants." However such a guide will be of interest to all the professions concerned with midwifery.

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1. Burnett, W. E.: *Program for Prevention & Eradication of Staphylococcic Infections*, J.A.M.A. 166: 1183-84 (March 8) 1958. 2. Adams, R.: *Prevention of Infections in Hospitals*, Am. J. Nurs. 58:344-48 (March 1958). 3. *Medical Authorities Recommend Ways to Control Infections*, Mod. Hospital 90: March 1958, 51-54.

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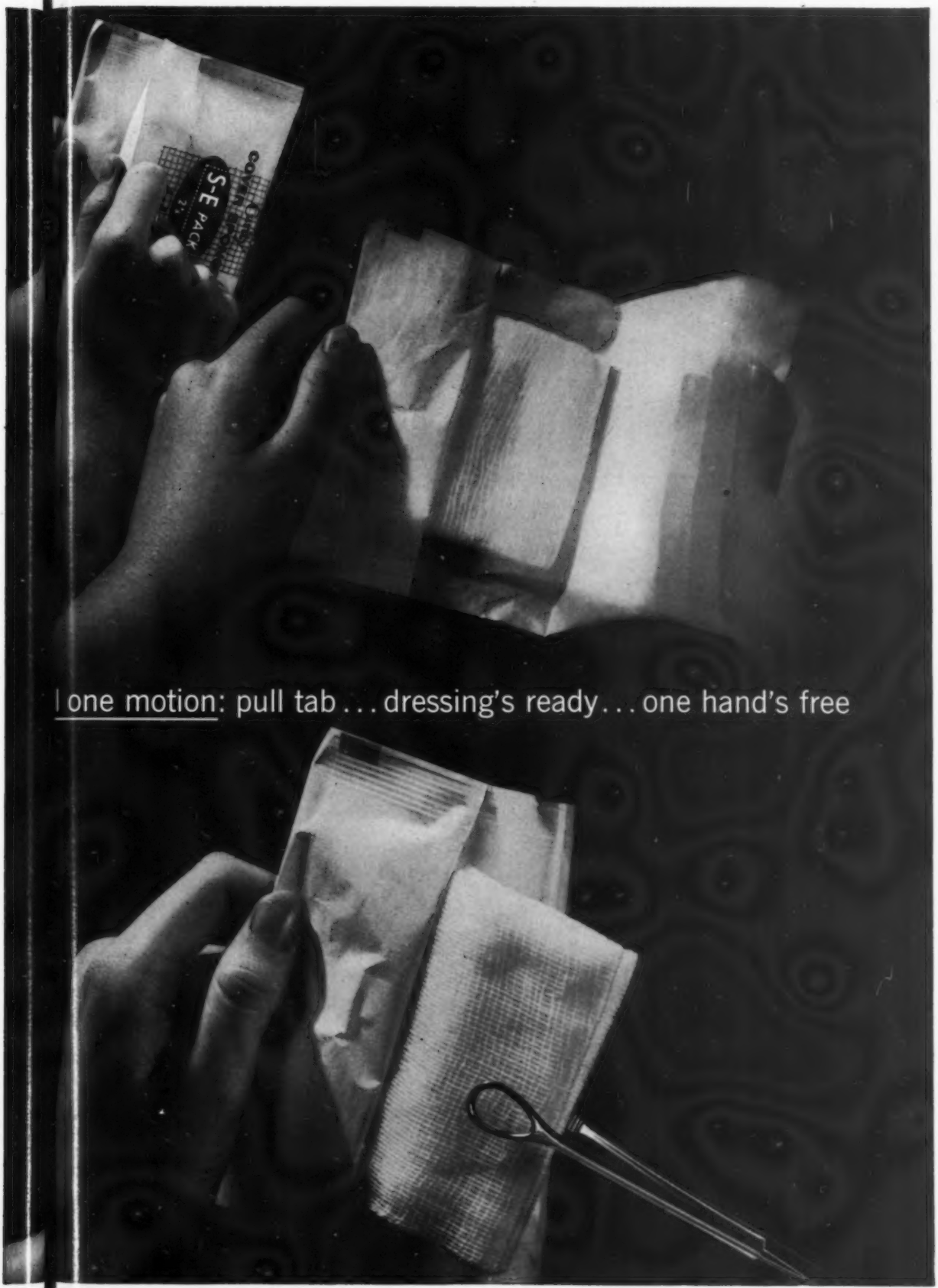
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CERTIFIED NURSING ASSISTANTS' COURSE

In Nova Scotia

Sister Maria Loyola
Antigonish, N.S.

AS in most areas of Canada, Nova Scotia too has the problem of a shortage of nurses. In order to utilize the services of the professional nurse to the best advantage, and have her free to perform those functions for which she was specifically trained, study was undertaken by the Department of Health in Nova Scotia and the Registered Nurses Association to evaluate the feasibility of setting up a Nursing Assistant training program. It was felt by those engaged in the early planning that the nursing assistant, having completed her course, would be able to make a significant contribution to the nursing service of the province.

Legislation and Regulations

The Nursing Assistant Act was introduced into the Legislature of Nova Scotia by the Minister of Health in 1954. It was not until 1957 that a Board was appointed on June 1st and an organizational meeting held.

The Department of Health in Nova Scotia requested the Registered Nurses' Association to register the nursing assistants for them. This was consented to, and registration followed.

Under the Regulations respecting the Training of Nursing Assistants the Board of Registration of Nursing Assistants is set up as follows:

(a) a person appointed by the Governor in Council;

(b) a person, who is a Registered Nurse, appointed by the Registered Nurses' Association of Nova Scotia;

(c) a physician appointed by the Medical Society of Nova Scotia;

(d) a person appointed by the Nova Scotia Branch of the Maritime Hospital Association;

(e) a person appointed by a school for nursing assistants that has been designated by the Minister prior to each such appointment;

(f) one person, who is a certified nursing assistant, appointed by the certified nursing assistants;

(g) a person, who is an officer of the Department of Education, appointed by the Minister of Education;

(h) The Minister or his representative, provided that the Minister or his representative shall not be entitled to vote at meetings of the Board.*

Under Article 10 of the above regulations a waiver clause has been provided for a three year period following the inception of the Board, to admit other than graduates of Schools of Nursing Assistants to the Register. The waiver allows for the registration of all graduates of School of Nursing Assistants, undergraduates of Schools of Nursing, practical nurses without examination up and until December 31, 1960 when this waiver expires. After this time all applicants will be required to take examinations.

Training Programs in Nova Scotia

There are two hospitals now giving the Certified Nursing Assistants' Course, namely Camp Hill Hospital in Halifax, which is operated by the Department of Veterans' Affairs, and St. Martha's Hospital in Antigonish. The latter hospital is the only voluntary hospital to date which is giving the course as approved by the provincial legislation.

The first class of ten students entered the school at St. Martha's Hospital at Antigonish in March 1957. One class each year since that date has been accepted.

The course is of ten months duration, three months pre-clinical and seven months clinical, which follows the plan approved by the Board of Registration for Nursing Assistants in the Province of Nova Scotia. Permeated with the ideal of complete Christian living, it is designed to prepare the student both in theory and practice for basic procedures in medical, surgical, paediatrics, obstetrical nursing, care of the aged and disaster nursing. Examinations are required at the completion of each subject with the exception of one on interpersonal relations. Assignments and panel discussions are the requirements for this course. As students, they go out with the public health nurses and with the student nurses to the immunization clinics.

The library facilities of the school of nursing are made available for them and a special section with specific reference books is provided.

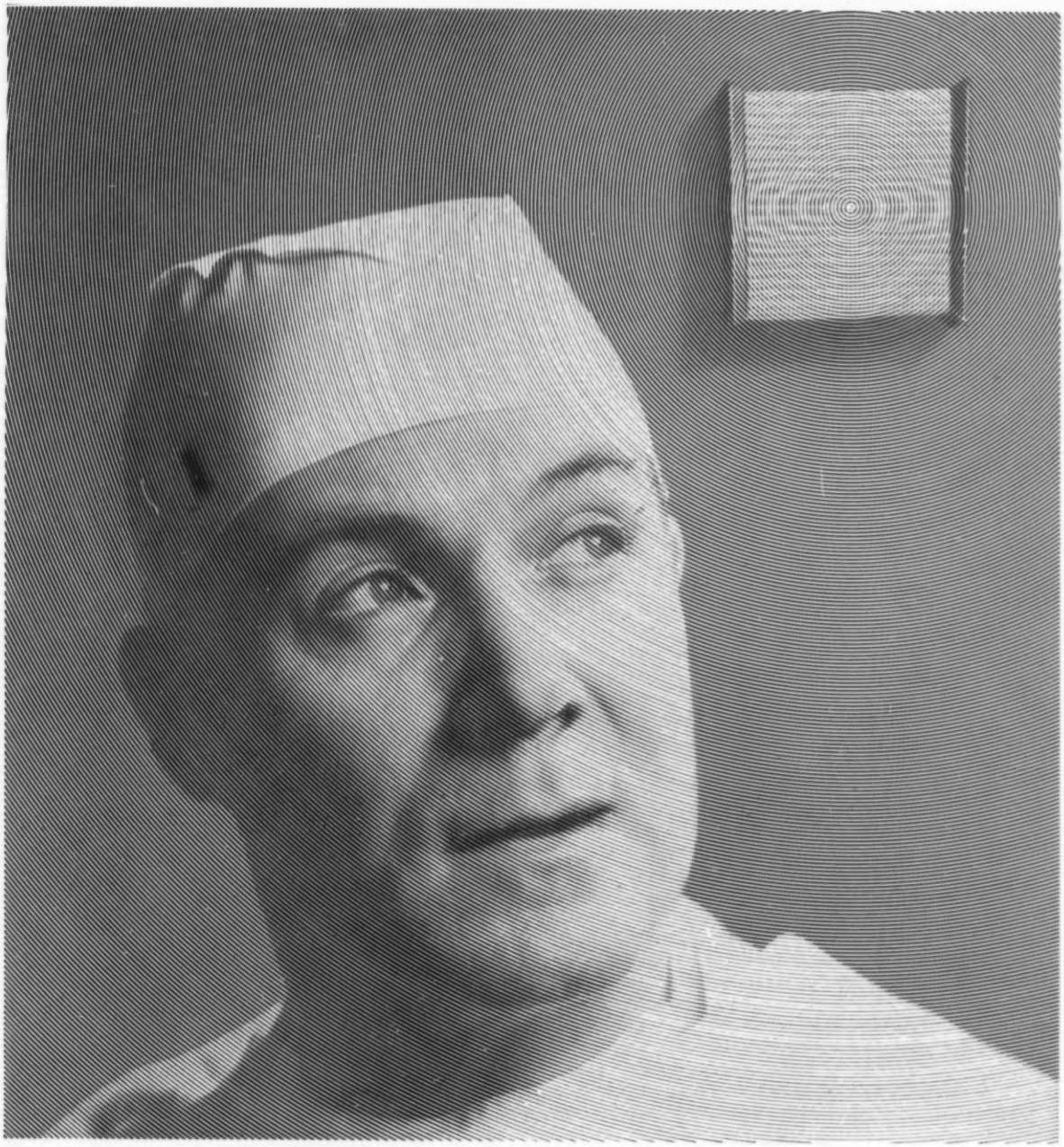
The uniform of the student nursing assistant consists of a yellow dress with white bib and apron, white shoes and stockings, cap in white with permanent yellow band. No pin is given. The uniforms are furnished by the hospital on a loan basis. Room and board are provided during the ten month period.

The entrance requirements are as follows: aptitude for nursing and a desire to give service; good health — mental and physical; good

(concluded on page 98)

Sister Maria Loyola is assistant administrator at St. Martha's Hospital, Antigonish, N.S.

**Province of Nova Scotia, Regulation Respecting the Training and Registration of Nursing Assistants, page 1.*



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Provincial Notes

Newfoundland

The new five-ton $75,000 cobalt bomb being installed at the St. John's General Hospital, St. John's, is nearing completion. The whole machine moves as one unit and revolves all around the patient. In this way no other part of the patient will be subject to the same amount of rays as the part being treated.

Excavation has started for the $1,500,000 paediatric and maternity wing for the St. Clare's Mercy Hospital, St. John's. The new wing will have 100 beds, 60 for maternity cases and the rest for children. When the wing is completed, the whole second floor of the present hospital will be released for surgical and medical cases.

Nova Scotia

The Victoria General Hospital, Halifax, is to have a 350-bed addition. With the re-development of existing facilities the bed capacity will be 853 beds—92 private beds, 205 semi-private beds and 556 public ward beds. Recently a week's course on surgical assistance techniques was held at this hospital. It was sponsored by Dalhousie University's faculty of medicine.

The Halifax Gyro Club have provided a new anaesthetic machine for the operating room of the Children's Hospital, Halifax. The new machine for administering various forms of gas anaesthetics replaces one which had been in use for 14 years. Through the years the Halifax Gyro Club has accepted the Children's Hospital as its major interest in the matter of assistance to a community cause.

Prince Edward Island

The new wing of the Prince Edward Island Hospital, Charlottetown, was officially opened in April. The new building consists of five floors: the ground floor houses the heating system, the emergency powerhouse, and linen closets; kitchens and dining rooms are on the first floor; the second floor is for obstetrics; the third floor has been reserved as the operating floor and surgical patients will be moved to the fourth floor after they leave the recovery room. The extension will cost approximately $1,268,000 with the cost of equipment totalling approximately $216,000. The new wing increases bed capacity by 58.

A donation of $1,000 has been received by the Prince Edward Island Hospital, Charlottetown, from the estate of Raymond D. Willard, Boston, Mass.

New Brunswick

Most of the work on the new wing of the Miramichi Hospital, Newcastle, is now being carried on inside. The addition, with other renovations to the hospital, is expected to be completed by the end of the year. Expenditures are estimated at $1,000,000.

Improved facilties for x ray diagnosis will be available in the near future, with the installation of new x-ray equipment in Victoria Public Hospital, Federicton. This unit has a device by which instant radiographs can be taken simultaneously with fluoroscopy. The equipment was recently purchased by the hospital with the approval of the New Brunswick Hospital Services Commission.

Quebec

Sketches are being prepared for an extension to the rear of l'Hôpital Notre-Dame de l'Esperance, Montreal. Plans call for 165-bed seven-storey addition. The structure is to have a reinforced concrete frame, with stone and brick walls.

At the Queen Elizabeth Hospital of Montreal a $3,800,000, 153-bed addition is under way and renovations at a cost of $1,000,000 are scheduled. An intensive care project is planned which will consist of 38 beds to be reserved for patients who need constant nursing and medical attention and special equipment. Plans are being made to establish a school for nursing assistants in 1961 which will be run in conjunction with, but quite separate from, the school of nursing.

Ontario

The new Welland and District General Hospital, Welland, was officially opened in April. The main wing is of six storeys and the capacity is 259 beds for adults and children and also 51 bassinets. The cost of the building and its equipment totals over $4,000,000. Architects for the new hospital were Agnew, Ludlow and Scott of Toronto, with Dr. Harvey Agnew of Agnew, Peckham and Associates as consultant.

The Wilcox Building of the Mountain Sanatorium in Hamilton is being converted into a 230-bed general hospital. It is to be called The Chedoke General and Children's Hospital. Architects for the project are Husband and Wallace of Hamilton. A strike held up work, but it is hoped that the hospital will be finished before the end of 1960.

The Fred Adams' Building, which is the new addition to the Metropolitan General Hospital, Windsor, has been officially opened. This building was formerly the city's isolation hospital and was turned over to the Metropolitan General Hospital last January by the Board of Health. With renovations costing $30,000, the addition contains 23 beds, bringing the capacity of the hospital to 373. The new unit will be used by convalescent patients. A $500,000, two-storey addition to the east wing of the hospital to provide an additional 60 beds is now planned.

A renovation program which will increase the capacity of St. Joseph's General Hospital, North Bay, from 186 beds to 200 beds is now under way. The former nursing sisters' quarters are to be used to accommodate 23 more bassinets and 14 more beds—the nurses have moved into a near-by recently remodelled private home. Renovations are expected to cost $150,000.

The Victoria Hospital, London, plans a $16,000,000 expansion pro-

gram to take place over ten years. The plans call for a 22-point series of renovations to existing facilities and new construction. It is hoped the building will commence this year and the first step will be the construction of an enlarged nurses' residence. Provision is made for 225 additional beds, but the principal function of the program is to increase accommodation for auxiliary hospital services rather than occupancy. It is expected that bed space will be increased in extensions to the north or main wing of the hospital and in the construction of a new ward building and an addition to the east wing. Architect, Gordon F. Glover of London prepared the plan.

The Hillcrest Convalescent Hospital, Toronto, which was built in 1886, is to be replaced by a 120-bed four-storey building to be erected in front of the old hospital. The old building will serve as an administrative centre and be available for the overflow of patients from the new building, due for completion by the end of 1961. Architects for the project are Govan, Ferguson, Lindsay, Kaminker, Langley and Keenleyside of Toronto.

The 300-bed addition to the Ottawa Civic Hospital is expected to be opened this month. Begun more than two years ago, the addition is a five-storey building in the shape of an H. Cost is approximately $5,500,000.

St. Joseph's Hospital, Toronto, has launched an appeal for $5,000,000. This amount is required for 130-bed eight-storey wing, containing a spacious out-patient department, five obstetrical delivery rooms, 46 bassinets, new laboratories, expanded x-ray facilities, a new physiotherapy department, interns' and sisters' quarters. It also provides for renovations in the existing buildings.

Manitoba

Work has began on the $3,000,000 new treatment building at Brandon General Hospital, Brandon. The five-storey structure will provide for 219 beds, a 40 per cent increase over present hospital facilities. Construction specifications call for the structure to be built strong enough to support three more storeys, with 60 beds to a floor. The children's pavilion has been vacated—this is the first of the old buildings to be demolished to make way for the new building. Recently $1,192,000 was raised in a campaign toward the cost of the construction. Architects for the project are Green, Blankstein and Russell, Winnipeg, with Agnew, Peckham and Associates as consultants.

Saskatchewan

In a recent plebiscite, residents in the Moose Jaw area favoured the granting of $182,500 to help defray construction costs for the proposed addition to the Providence Hospital, Moose Jaw. The by-law provided a cash grant of $35,013 to the hospital this year and a debenture issue of $147,487 to cover the balance of the grant requested by the hospital.

Final plans for a new power plant and laundry for St. Paul's Hospital, Saskatoon, are now being completed. This is the first step towards the construction of a new hospital. Tentative architects' plans call for completely new patient accommodation and the conversion of one wing of the old building as a residence for the hospital's interns.

Work has begun on the proposed addition to the Carrot River Union Hospital, Carrot River. The overall cost is estimated at approximate-

(continued on page 106)

Hospital Insurance News

For the Yukon

Beginning July 1 this year, Yukon residents will come under the federal hospital insurance plan. The plan will cover every Yukon citizen who makes his home in the territory and has done for three months previous to the time hospital benefits are needed.

Hospital benefits at standard ward level will be available at no cost to qualified residents. Funds to finance the scheme were allocated from territorial coffers out of general revenue. Under the federal plan, everything is covered except private ward accommodation, special nursing care and transportation. It will also cover qualified Yukon residents requiring special care outside.

When it becomes effective the federal plan will cancel group insurance policies like Blue Cross insofar as hospital benefits are concerned.

New Officers of Maritime Blue Cross

At the annual meeting of the Board of Trustees of the Maritime Hospital Association held on March 26 of this year, John N. Flood was re-elected chairman of the Board and L. E. Prowse, M.D. was elected vice-chairman.

Recently the Board of Trustees approved a revision in management structure. The titles of president, vice-president and general manager, and vice-president and medical director were abolished. Under the new structure, officers appointed for the year 1960 are: executive director and secretary-treasurer, T. L. Doyle; associate director — professional relations, J. A. MacDougall, M.D.; associate director — medical services, J. A. McMillan, M.D.

Translations of Insurance Folder

"The Basic Facts About Ontario Hospital Insurance" are now written in fourteen languages in a new folder prepared by the Ontario Hospital Services Commission especially for the benefit of newcomers to Ontario. To make certain that new arrivals understand the importance of registering for hospital insurance benefits without delay, the Commission has printed the necessary information in the languages used most among newcomers. This pamphlet will be available in Citizenship and Immigration offices both in Europe and Ontario. Ethnic clubs and church organizations throughout the province are also being asked to distribute the folders among the members.

—Ontario Government Services.

New Medical Plan in B.C.

Thousands of British Columbians have enrolled for low-cost medical insurance under an experimental plan offered by the doctor-sponsored Medical Services Inc. MSI this month opened its rolls for the first time to individuals and to persons over 65 years. Previously membership had been restricted to groups of three or more and to those under 65 years. To determine whether premiums are adequate before again offering individual coverage, MSI wants a year's experience with the new group.

Blue Cross Surplus in Manitoba

The Manitoba Blue Cross, with a surplus of approximately $1,200,000, is to be liquidated. The surplus is to be turned over to the Manitoba Cancer Treatment and Research Foundation to help construct and equip a building in which Manitoba residents suffering from cancer may receive the latest radiation therapy procedures. It is understood that treatment at this centre will be available without charge. Also any person who was a subscriber in March, 1958 to the Manitoba Blue Cross, may apply for a pro rata share of the Blue Cross surplus.

Coming Conventions

June 12-16—The Canadian Society of Laboratory Technologists, 24th national convention and annual meeting, Sheraton-Mt. Royal Hotel, Montreal, Que.

June 13-17—Canadian Medical Association, Annual Meeting, Banff, Alta.

June 13 - 17—Canadian Society of Radiological Technicians, 18th convention, Macdonald Hotel, Edmonton, Alta.

June 14 - 16—Canadian Dietetic Association, Queen Elizabeth Hotel, Montreal, Que.

June 19-24—Canadian Nurses' Association, biennial meeting, Nova Scotian Hotel, Halifax, N.S.

June 22-25—Canadian Physiotherapy Association, annual convention, Vancouver, B.C.

June 27-29—Comité des Hôpitaux du Québec, annual convention, Provincial Exhibition Grounds, Quebec City, Que.

June 28-July 1 — Maritime Hospital Association, Algonquin Hotel, St. Andrews, N.B.

July 4 - 8—Annual Institutional Laundry Institute, Ontario Agricultural College, Guelph, Ont.

Aug. 28 - Sept. 2—International Society for the Welfare of Cripples, Eighth World Congress, Waldorf-Astoria, New York.

Aug. 29 - Sept. 1—American Hospital Association convention, San Francisco, California.

Sept. 5—Catholic Hospital Conference of B.C., annual meeting, St. Vincent's Hospital, Vancouver.

Sept. 6-9—Western Canada Institute for Hospital Administrators and Trustees, Queen Elizabeth Auditorium, Vancouver, B.C.

Sept. 20-21—Catholic Hospital Conference of Alberta, 17th annual meeting, Jubilee Auditorium, Edmonton, Alta.

Oct. 10 - 11 — Catholic Hospital Conference of Saskatchewan, Bessborough Hotel, Saskatoon, Sask.

Oct. 10-14—American College of Surgeons, 46th Annual Clinical Congress, San Francisco, Calif.

Oct. 12-14—Saskatchewan Hospital Association, annual meeting and convention, The Bessborough Hotel, Saskatoon, Sask.

Oct. 18-20—Manitoba Hospital and Nursing Conference, Winnipeg.

Oct. 24-26—Ontario Hospital Association, annual convention, Royal York Hotel, Toronto, Ont.

Oct. 25-27—Associated Hospitals of Alberta, Northern Alberta Jubilee Auditorium, Edmonton, Alta.

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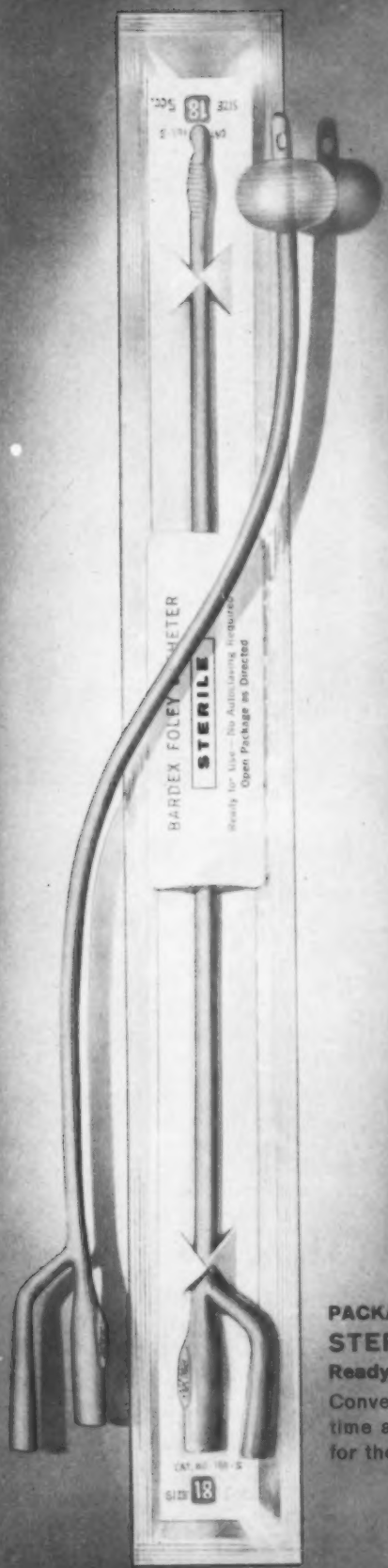

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10 rooms. He should take his form along and in each room check each item, with a tick if it is all right, with an R if a small repair is made and make note of what was done. Indicate with an X if more work is required and make out a work order for the job.

When we started doing this, the reaction on the wards was startling. Co-operation was splendid and relations between engineering staff and other personnel improved tremendously. With respect to small jobs, we have another trick which other personnel appreciate. If a piece of equipment which needs minor repairs is in use at the time of inspection, we tag it with a luggage label and this message: "Please send to shop as soon as possible for repair."

Plans and specifications

For Large Machinery

A plan of inspection for large and complicated machinery requires much more preparation. This category includes the power plant, heating, ventilating, and cooling systems, switchgear and motor controllers, laundry machinery, and so on. Now it becomes important to arrange *when* the work can be done. Nothing is more annoying and time-wasting than to go out prepared to do a job and be told you can't. "Come back on Tuesday." For every piece of equipment there must be an inspection period reserved. If this is not possible, a duplicate must be provided. For this work all department heads should know and agree to the engineer's schedule. He can then insist upon their co-operation.

I should add here that the inspection schedule in no way relieves the shift men and operators of any of their responsibility for looking after their particular jobs and checking everything on every shift or every day. This should be clearly understood.

Certain inspections should be done weekly, monthly, or yearly. Weekly work is added to the duties of shift engineers and is usually of a simple nature. Of the monthly inspections, one will be singled out as the annual inspection. If you have 50 machines, you can calculate on doing two inspections a day, and so on. To equalize the work, it might be arranged to have a comparatively easy inspection follow a tough one on the same day.

We use a card system to record these inspections. The cards are numbered 1 to 30 to signify which day of the month they are issued. We have about 160 items to check, so that six or seven cards are issued daily. The card has a check list on the front and instructions on the back. The card is given to the right man who, following the instructions, will check the items and return the card—making out a work order for any other work that appears to be necessary. The chief engineer inspects the item and if he agrees he signs the work order. A data card is made out for the office and work done on a work order is reported and costed. The inspector should also report any parts that show signs of wear so that spares may be made available.

Work Orders

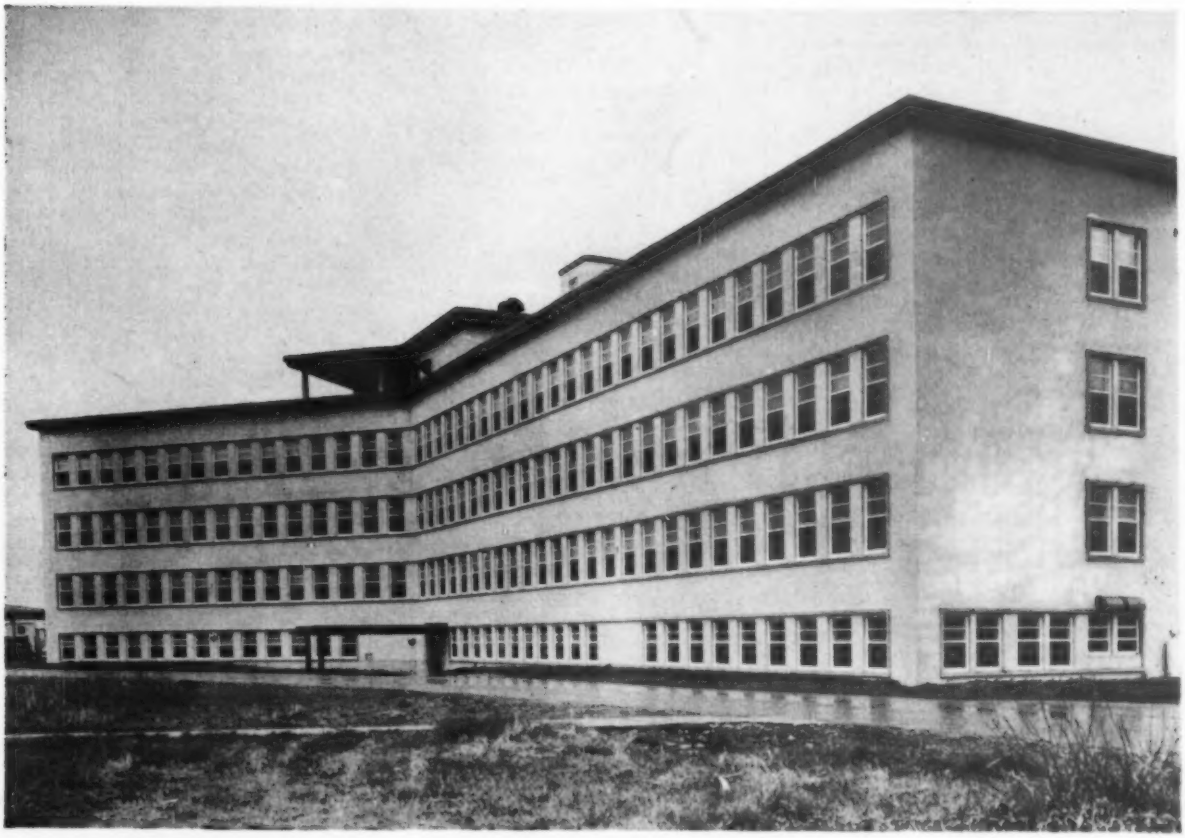
One direct result of the foregoing inspections will be finding work which should be done. To make sure that nothing is overlooked we use an adaptation of the well-known job ticket system. We call them work orders, as mentioned above. Every job that comes along, either as a result of our own inspections, a trouble call, or a departmental requisition, is given a work order. The latter are given a requisition number while those for work phoned in or originating in our own department receive so-called "blotter" numbers. These start with No. 1 each day and therefore each work order for a blotter call must have the date and number. The order must also show the job, the location, and the name of the person asking for service. If, in our opinion, a request is not reasonable the person making it is asked to put in a work requisition and all such requisitions must be approved by the operations committee.

The work order is given to the workman who is best fitted to do the job. He fills in his name, the date, time spent on the job and materials used. One or more workmen on a job will use the same card so that all the work done is on one record. When the work is finished, the work order is turned in to the foreman or chief engineer.

At our hospital we receive blotter calls on a tape recorder answering service, through the telephone system. Anybody who wants a service from the works department must phone Local 220. The automatic answering service, tells him or her to state name, telephone local, location and nature of the trouble. This service is on a 24 hours a day basis. During working hours, the messages are played back and work orders made out about every hour. Nobody is tied to the phone. For instance, the night maintenance man goes out to do his jobs and gets the messages when he comes back. During the day, the man who takes the play-back has no responsibility for getting the work done. He must only make sure it is on a work order. Thus there is no temptation to neglect the work and say that no message was received. We find that often a person is quite sure he has called about something when really he only got as far as intending to. If there is no record, our attitude is that there was no call. The automatic answering service costs $20.00 a month and is well worth the money. In case of an emergency, of course, there are four direct local numbers which can be used.

HOTEL DIEU HOSPITAL, CHATHAM, NEW BRUNSWICK

ARCHITECTS: BELANGER & ROY, MONCTON



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Operational Planning

(concluded from page 74)

Work orders from blotter calls are made out in duplicate and the second copy is held by the foreman until the job is completed. He can, therefore, see at a glance what work is outstanding. When both copies are back in the office, a notation is made on the duplicate to tell at what hour the work was completed and by whom. This is filed by date and time and, in case of any complaint, provides an instant check. The workman's copy is costed and charged to the department concerned.

Our accounting department requires us to make a return every month, showing all our charges to each department, including the smallest blotter call.

Special Problems

The steam plant, operating rooms, sterilizers, laundry, and food service, are departments which could be included in the regular service; but we find that it pays to have them looked after by people on the staff who are best qualified to do so.

The care of the steam plant is rightly the function of the stationary engineer and is recorded on his daily log. He should record what boilers are on the line, what auxiliaries, times of blow-down and soot-blowing, temperatures of flue gas, feed water, outside temperature, and the temperature of check points in the hospital. He should also record the amount of fuel burned and meter readings on steam, water, electricity, gas, et cetera.

With respect to operating rooms, everyone concerned should be familiar with Bulletin No. 16 of the National Fire Prevention Association, called *Safety in Operating Rooms*. We do everything in our power to carry out its recommendations which are accepted by the Canadian Standards Association and, in this province, by the Hydro Electric Power Commission. These recommendations refer to the control of temperature, humidity, ventilation, anti-static grounding of electric equipment, and conductivity of floors and materials. You need a megger, a hygrometer, and an anemometer, at least, for testing. Check conductive floors daily. The efficiency of these floors depends entirely on their maintenance and cleanliness.

Check sterilizers and autoclaves daily — particularly to make sure that the temperature agrees with the pressure on your autoclaves.

We regard the laundry as a special problem because it has quite an amount of automatic machinery. We have a man trained to check and adjust this equipment. On the slack day in the laundry (Thursday), we go over one quarter of the laundry machinery so that every machine gets the treatment once a month. The laundry manager has our list and arranges to have the right machines free; and he does not get them back until they have had a thorough going over — lubricating, checking, adjusting, and a report on any major work that appears to be coming up. Again, a record is made of conditions as found and fixed; and a work order made out for anything special to be done next time around.

Seasonal Work

Seasonal work has chiefly to do with heating, ventilating, and cooling and can be taken care of by routine maintenance if it is properly scheduled. I refer to cleaning traps, convectors, ducts and grills, checking automatic valves on coils and heat exchangers. Inspection and repairs to roofs, windows, and screens, and outside painting, can all be arranged for the proper season.

Outside Contracts

Certain work can be handled better and more cheaply by specialists and I have in mind such items as: elevators, x-ray machines, electronic equipment, surgical instruments, scientific optical instruments, office machinery, outside painting, duct cleaning, and refrigeration. Only the largest hospitals, and you can count them on one hand, can afford to have, or to have trained and pay, technicians for these jobs and provide the space and equipment they need.

All these services are available on full maintenance contracts or on service calls. A year or so of trial on service calls will give an idea of the cost. Then this cost can be compared with a quotation on full maintenance or an estimate of the cost of additional special help.

At present we have an electronics technician, a full maintenance contract on elevators and office machinery, on window cleaning, and, of course, on rented data processing machines. The others are on a pay-as-you-go basis. It is important to remember that when special machinery and equipment is being looked after by service calls, they should get the same attention as all the other items on routine maintenance. The only difference is that purchase orders are issued instead of work orders for repairs.

Alterations and Additions

It is impossible to state a general policy on these matters as very few hospitals have the staff or equipment to cope with this type of work. Usually bids must be obtained by the purchasing department from plans and specifications of the maintenance supervisor or the architect. Sometimes alterations can be worked in by the maintenance staff but that staff is for maintenance and the latter will suffer if too much time is taken out for construction.

It may be possible to obtain temporary help and do the job by day labour. This depends on the labour market and the best men are usually working. If the hospital is going to do its own work, proper estimates of cost must be made out to compare with the contractor's bid. We sometimes do jobs by contract on a cost plus basis and this involves careful checking of time and material by the hospital foreman. ■

Italian Polio Unit

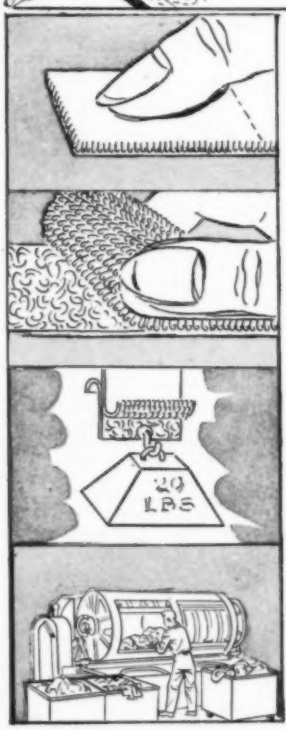
At Pietra Ligure on the Italian Riviera is a hospital community of some 3,000 patients living in pavilions and villas. This hospital city, so ideally situated, is maintained by L'Instituto di Santa Corona of Milan. It caters chiefly for tuberculosis of the bone and tuberculosis in children, but a recent addition has been a pavilion for the rehabilitation of polio sufferers, chiefly children.

The new pavilion provides accommodation for about 100 beds. It is a two-storey building with balconies and terraces so that children can be brought outside in their beds, and there are gentle ramps, easily managed by weak and convalescent children, connecting the terraces with the gardens.

Behind the main body of the building are two wings. One of these, to the west, is devoted to dining halls, kitchens, et cetera, while the other contains the therapy rooms. The ground floor of the therapy wing is furnished chiefly for hydrotherapy, while on the first floor is housed the mechanico- and electro-therapy equipment, radiology and the gymnastic room.

—*The Hospital*

The main thing to ask for is sight; there is light enough.— *John Ruskin.*



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(continued from page 53)

for training. We are now in a position to see what training our supervisors will need. If a formal training program is available to you, your supervisors will need job instruction training, job relations training, job leadership training, to mention just a few. Industry does provide these courses for their supervisory staff. The Ontario Department of Education in co-operation with the Department of Labour offers a supervisory training program. I would suggest this project warrants consideration by dietitians.

Employees

Finally, there is a third group who need training—our employees. These may include the valuable employee who is to be promoted to a higher position in your kitchen; the employee who must learn to operate that new coffee maker you have just installed; this new employee who is starting in your salad pantry to-day. Let us not forget that no matter how great a warrior he is, a chief cannot do battle without Indians! At this time we will devote our attention for a few moments to the question of *How To Train.*

Teaching

A training program is time consuming, but most rewarding in its accomplishments. You, the teacher, must make your own lesson plans to meet specific needs and then follow through with the teaching program giving it your personal attention regularly. The job of teaching is entirely different from that of doing. The skilled person who does the training must not only know the job but must know *how* to teach. She must be enthusiastic and stimulating.

Let me remind you of the principles of job instruction.

Step 1—*Prepare the Worker*—Put him at ease; state the job; find out what he already knows about the job; get him interested in learning the job; and place him in correct position to observe the job.

Step II—*Do the job yourself*—tell, show, illustrate; one important step at a time; stress each key point, emphasize hazards; give reasons *why* and explain no more than he can master; do the job again having him tell you what to do; make sure he understands.

Step III—*Have him do the job*—correct errors; have him do the job again explaining what he is doing and why he is doing it; question (*why, what, where, when, who, how*); continue until you know he knows.

Step IV—*Follow up*—Put him on his own; designate to whom he goes for help; check frequently and encourage questions; taper off to normal supervision.

A good training program should integrate the group method of teaching with on-the-job instruction methods. Skills are taught to the individual at the job level, while general department information, attitudes and loyalty, are taught by the group method. Training should be a "2-man" job. The employee should be given as much responsibility as he can take for his own development. It is good for morale if all the thinking is not done for the employee.

In planning the program it is suggested that the kitchen be so organized that there is adequate supervision of workers. What tools can we use? A well organized dietary department will have a written work schedule of every job and a written outline for breaking in a new employee on that job. Standards must be established for how much a new employee should know about the job at the end of the first day, the second day, and when he should be "on his own". Standardized recipes and standardized portions and methods of service are invaluable in your training. The guess work is removed from quality control and the information is specific. Demonstrations can be used effectively to teach the use of equipment and is one of the four basic steps of job instruction.

Classes for various workers may be planned. For example, steamtable workers may be taught how to serve food, your tray girls may be taught the proper approach to the patients; your cooks the proper care and handling of equipment. We have found that an outline of a lesson on sanitation is helpful to supervisors who train for a safe food service. This outline includes a discussion on bacteria, regulations of the Department of Health for food handlers, personal hygiene and good grooming.

Tools for Teaching

The compilation and use of a procedure book for the department is invaluable as a training tool. All the schedules, specific dietary routines, procedures, policies regarding menus, catering and all the forms used in the department may be included. The preparation of the manual may be your fastest way of "getting organized".

Films can be used to great advantage—food handling, dishwashing methods and coffee making, to mention just a few topics. A bibliography of suitable films is available. I would like to offer a word of advice about the use of films. Always preview the film; introduce it with a few comments emphasizing the points to be observed during the film and follow the show with a discussion from the floor.

After the program of training is developed along established objectives and completed, there remains the follow-up which is continuous supervision and follow through with refresher training.

We are now ready to spend a few moments with our new employee. This means anyone working in a new job situation, a replacement, a transfer or anyone newly hired. We assume you have made your decision to obtain the new employee and the qualification requirements have been determined by a review of the job description, a consideration of the special knowledge and skills required, and the special physical and mental demands or the personality factors involved.

Selecting Employees

It is very important when we review the information on, and interview the prospective workers, that we should select only those who possess the abilities and skills actually required by the job. The proper selection is important to the worker. Why? Proper selection will arouse and maintain the interest and enthusiasm of the worker. It will make the new worker feel secure, use his best skills and talents, and make him feel he belongs to the organization. You should always interview applicants and try to get as much information as possible in the shortest period of time to determine if the new worker will meet the requirements for the job.

The purpose of the interview is: (a) to find out about the qualifications of the worker; (b) to satisfy yourself the individual will (or will not) meet the requirements needed to do the job; and (c) to impress the individual favourably.

In the interview avoid promises of promotions or privileges which may not materialize. Watch your own personal bias and do not create a poor attitude towards the job. Finding, selecting, hiring and training a new worker costs from $50 to $500 depending upon

(continued on page 82)

Borden Guide to better food purchasing

BORDEN'S TRUMILK. Whole milk, cream and all, in handy, powdered form. Add 7 parts water to 1 part Trumilk by weight. No refrigeration needed.

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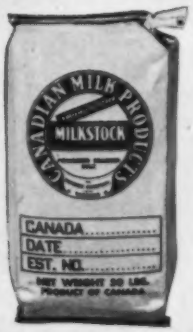

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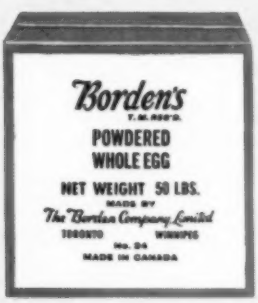

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Economy in Operation

(concluded from page 47)

the storage section of the feed water heater, as a follow up to the mechanical process.

A definite excess must be maintained of approximately 30 to 50 parts per million, or as recommended by your feed water specialist. With proper attention and treatment, the oxygen content of the steam will be decreased, resulting in protection of the boiler feed lines, boilers and steam condensate piping. Where de-aerating feed water heaters are not used, the consumption of sodium sulphite can be expected to be above that used with a heater.

Sludge build-up in return piping can be traced to poor control of the boiler water treatment. High concentration of the total dissolved solids in the boiler is a definite indication of improper treatment and control. Carry over is the result. Carry over often varies at different boiler loads on the boiler. Steam purity tests will indicate whether a correction of the boiler water T.D.S. is advisable. Special attention must be given to the steam baffles in the steam drum. Poorly fitted baffles result in carry over increase.

Sludge deposited in the return lines causes corrosion. Operation of steam traps is retarded, resulting in dangerous water hammer and an increase in maintenance duties. Where vacuum return systems are in use, special attention is required to prevent air inflow at valve packing glands, et cetera.

Frequent tests are necessary at conveniently located points, to ascertain the Ph readings of the condensate also T.D.S. Ph values of not less than 7 and preferably over, 7.5 to 8.0 should be maintained.

Over treatment in any respect is a waste. Under treatment can lead to troubles and increased maintenance costs. This matter plus excessive use of blow down, results in lost dollars for fuel, water and treatment.

Contamination of Condensate — This is a dangerous condition and one that calls for a thorough check of the following: exhaust steam — oil separators — power plant; oil heating units — power plant; steam jacketed kettles — dietary department; soap tanks — laundry; and heat exchangers — domestic water heaters.

Efficiency of Mechanical Plant

A visit to any hospital power plant is always of interest. Here we look for new ideas that may be of value for use in other plants. Also we look for conditions leading to loss of operating dollars. We are concerned not only with the power plant operation but with all services provided and maintained by this department.

On completion of a walk around the plant to become acquainted with the installed equipment, we next check the engineer's monthly report. This provides information about operating costs in every aspect.

Firing Equipment — Operation costs are usually based on costs of repairs, et cetera, per ton of coal consumed per year.

Coal and ash handling — Equipment costs are assessed likewise.

Boiler Water Make-Up — Gallons used per month and expressed as a percentage of total steam output is usually a guide to losses.

The engineer is expected to do everything in his power to offset unnecessary and often preventable waste of steam. Heat recovery methods, to offset waste of heat contained in hot dirty water from boiler blow downs to sewer, should also be undertaken. Steam escaping from roof vents to atmosphere is an indication of waste and a definite reflection on the ability of the engineer in charge of the plant.

Everything possible should be done to offset these losses. The results will be noticeable in a reduction in the boiler water make-up consumption, also in chemical feed treatment and fuel decrease.

Many instances could be quoted where such preventable losses have been found. It is the responsibility of the power plant engineer and his staff to minimize these losses, however small. It is the old story of a penny saved is a penny earned. Valve packing gland leakage, also leakage from flanged or screwed joints, must be immediately cared for.

Heat recovery from flash at high pressure steam traps discharge is important. Wherever possible, each plant should contain a common low pressure steam main. Modern practice includes discharge of high pressure traps to this L.P. main. All exhaust steam should be piped to this main, with installation of the required back pressure relief valve to atmosphere. Make-up low pressure steam should be supplied through a reliable steam pressure reducing valve. All equipment such as water heaters should be supplied from this common main.

Where contaminated steam is a problem, reliable oil separators should be installed to protect the boilers from oil contaminated feed water. It is often advisable to pipe this oil loaded steam to a special heat exchanger for primary heating of domestic water or feed water and allow the contaminated condensate to flow to sewer. Fuel oil heaters are always piped in this manner.

Many small savings can be made in the average plant, by installing heat recovery equipment. Look around your plant for these opportunities to salvage dollars.

Records—In each modern plant it is common practice to keep a daily shift log sheet covering the operation and consumption of power plant items. Daily study of these, also the respective recording charts, by the chief engineer enable him to know at a glance if the equipment is being carefully operated and producing efficient results.

The owner's investment must receive full consideration. Fuel and supplies are consumed to provide certain results. These are finally evaluated on a cost-accounting basis. The whole is a reflection on the abilities of the staff in general and those in charge in particular.

Daily records are essential. From these the data required to complete the monthly and yearly reports are obtained. Keep your daily records straight and the balance will be easy.

Domestic Hot Water—Hospitals as a rule are large consumers of hot water. The equipment used should be maintained in good order. A safe working temperature of 140°F. at the heaters or storage tanks should not be exceeded. Temperature recording charts are recommended, as a check on the automatic temperature control equipment.

Where higher temperatures are required, such as for dishwashers, temperature boosters are advisable. These should be of the heat exchanger type, thereby offsetting the loss of condensate which prevails with the open steam jet or mixing type heaters.

Waste of hot water from leaking faucets, or other preventable losses, is, in turn, a loss of fuel dollars in addition to water costs.

Laundry—Water temperature required for this service is customarily 180°F. Installation of heat recovery equipment will result in a reduction of steam consumed.

Consumption of steam is estimated at four pounds per pound of laundry. Consumption of hot water is estimated at three gallons per pound of laundry. Our survey reveals that these figures are not the lowest, or highest, but a fair consumption rate for estimating.

Staff Training—The chief engineer is responsible for the performance of the duties assigned to the shift engineers. In turn, the shift engineer is responsible for the training and performance of duties assigned to junior staff.

Prior to taking charge of any unit, operators should recognize the definite responsibility which they inherently assume for handling any operating emergency which may arise.

This responsibility necessitates a complete knowledge of the purpose of the apparatus, its operating characteristics, and the effect that any or all interconnecting piping or duct work has upon the functional performance of the various pieces of equipment. A knowledge of normal operating pressures, temperatures and flows, together with the permissable variations is essential, as any deviations from normal readings may serve as a forecast of approaching operating emergencies and the seriousness of the condition. ■

Studies on the Composition of Turkey Meat

Over a period of three years, research has been carried out on the nutritive composition of turkey meat in the laboratories of the Nutrition Division of the Department of Poultry Husbandry of Cornell University.

It was found that the breast and leg of roasted turkey, compared with other meats, rank higher in protein; that their caloric content is comparable to that of veal and round steak. Roasted turkey breast and leg meats were also found to contain one and a half to three times as much riboflavin and niacin as most of the other cooked meats. The cholesterol content of turkey meat relative to other animal foods was found to be lower; also, the fat contained a high percentage of unsaturated fatty acids resembling in this respect the vegetable fats which have been shown in certain experimental conditions to be beneficial in blood cholesterol studies.—*News of Graduate School of Nutrition, Cornell University.*

Staff Training

(continued from page 78)

the complexity of the operation. In the interest of economy, we must increase our skill as supervisors, getting the right workers on the right jobs, so that the cost of developing a good department is kept at a minimum.

Induction Period

When our selection has been made, we are ready for induction training which is the most important phase of our training program in that understandings, habits and attitudes developed during the first days and months of employment are apt to persist. The induction period is your greatest opportunity to win the worker's loyalty, stimulate his interests and get him into satisfactory production. You as the supervisor should prepare to receive the new worker. How do you do this? Review his work experience, his education and previous training. Have a list of his duties and responsibilities prepared to discuss with him. Have his work place, equipment and supplies ready. We should welcome the new employee. Put him at ease. Remember your first day on a new job? You should show a genuine interest in him by making friendly enquiries into his background and interest; his problem with transportation to and from work; perhaps about his family. You should explain the work of the unit to which you assign him. Tell him about the function of that section, how it fits into the over-all organization, how his work is related to that of the other employees, who his immediate supervisor is. Then introduce him to the supervisor, and to the other workers and explain briefly the duties of these persons. Arrange for someone to take him to lunch the first day. He should be shown the kitchen, the location of elevators, washrooms, cafeteria, and other facilities.

Rules and regulations should be explained carefully. These include hours of work, punctuality and good attendance, lunch periods, rest periods, use of the telephone, leave of absence, method of payment. It is an excellent practice to have this information written and available for each employee.

The next step is to instruct him in his job or assign him to a qualified instructor. The appointment of specific trainers who are workers chosen from each section of the department to assist the dietitian in the induction and training of new staff is very desirable. These trainers should be given specific instruction in training methods and should be provided with time for discussion of their problems. Some of the points to be considered by the one doing the training are:

1. Give step-by-step instruction.
2. Explain quality and quantity standards you have set for the department.
3. Assign him to his workplace.
4. Provide ample opportunity for discussion between the supervisor and the trainee. The purpose of course is to reduce to a minimum the time between employment and the time when the new worker has a thorough and complete understanding of his job and the skills required to do it.
5. Give careful explanations of the use and care of equipment. Be sure to stress safety practices.
6. The final step of course is follow up. We must check frequently on progress, encourage questions, make corrections and above all give encouragement.

A radio announcer has given us a 3-step method of putting across an important message: 1. Tell them what you are going to tell them; 2. Tell them; and 3. Tell them what you have told them.

The right mental environment for a staff training program is a correct attitude towards the worker and towards the work; the attitude based on true liberty and the authentic dignity of the human person and the unselfish devotion to service. The dietitian, the assistants, and the employees, need training. A good training program should integrate the group method of teaching with on-the-job instruction methods using all the available training aids to best advantage. Finally, the proper selection and induction of the new worker provides you with the greatest opportunity to win worker's loyalty, stimulate his interests and get him into satisfactory production. Develop a training program for your own department; work at it patiently and perseveringly. I will guarantee then, that no worker will ever come to you and say: " I spend eight hours a day here. Do you expect me to work too?" ■

Canadian Hospital Directory—1960

The new directory of hospitals in Canada is now available at $2.50 per copy or $2.00 each in lots of five or more. Mail your order to the Canadian Hospital Association at 25 Imperial Street, Toronto 7.

C. H. A. Library is for your use

THE purpose of the Canadian Hospital Association library is to be of assistance to the personnel in Canadian hospitals. In addition to a fine collection of books, manuals, and pamphlets, the library maintains files of articles clipped from current journals on subjects pertaining to the various aspects of the hospital field. Packages are made up in accordance with specific requests. All material is available for a three-week loan period. There is no charge for this service. These packages are authorized as third-class matter and may be returned to the librarian at the rate of 2c for the first two ozs. or fraction thereof and 1c for each additional two ozs. or fraction thereof, or at the parcel post rate, at the option of the sender.

Duties and Responsibilities

(continued from page 45)

care of itself without a night operator. In addition to the usual operating controls, it was supplied with a high pressure cut-off switch on the discharge line, one safety valve on the discharge header, one safety valve on the condenser, two safety valves on number one receiver, and two safety valves on number two receiver. The system was also protected against failure of the water condenser pump. The motor driving this pump was interlocked electrically with the compressor motors so that the compressors would be shut down automatically if the pump motor stopped. In spite of this, one of the receivers blew up.

In 1949 two men were killed and five seriously injured when an ammonia compressor manifold ruptured. In 1957 a 25-ton air conditioning unit exploded and killed three persons. In 1955, five persons were killed and 13 injured when an air compressor blew up in a food processing plant.

These examples clearly show the need for the recognition of the greater danger to-day in so-called automatic operation as compared with a decade ago when manual operation was accepted as needing careful supervision. Automatic controls are a valuable aid to the operating engineer but they do not relieve him of the responsibility of securing safe operation. He must still supervise and check these controls periodically and a maintenance schedule should be practised.

Mention was made previously that packaged units and automatic controls were being accepted as the ultimate in safety. I trust that the foregoing sections will show that this assumption is incorrect on a wholesale basis. However, the demands for changes in legislation were very real. Now we are to have a Royal Commission to investigate, among other Acts, the Operating Engineers Act, and this will probably save the swing to a situation where less operating coverage and more danger is allowed. This would probably mean raising the 25 horse-power high pressure and 75 horse-power low pressure steam plant exemptions to higher figures, despite the present greater evaporative development. In a similar but possibly broader sense, the refrigeration and air compression field might have been raised too high for safety. We are hopeful now that realism in safety rather than false economy will be the guiding factor in the future.

In the Act a chief operating engineer is defined as an operating engineer who is responsible for and supervises the operation of a plant. In the regulations it is stated that he must take all steps necessary to maintain the plant in safe operating condition and maintain discipline among the persons employed in the plant who are under his control or supervision. He must also direct and supervise shift engineers or shift operators in their work and duties for the safe operation of the plant. Again, he must be on call for duty at the plant at all times except for reasons of health, vacation or leave-of-absence as set down in Section 13.

When the chief engineer has finished his normal operating period unassisted or assisted by a certified engineer, according to

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Duties and Responsibilities
(concluded from page 84)

circumstances and type of plant, he must be relieved by a shift engineer of one grade lower as a minimum requirement, who assumes the full responsibility of the plant, under the direction of the chief engineer. He is then responsible for the safe operation of the plant and the supervision of other employees on his shift. He should also maintain a close watch on the condition and repair of all equipment in the plant and report to the chief operating engineer any condition he considers may impair the safety of the plant and take such steps as he considers necessary to prevent any immediate danger.

Now we must consider the meaning of a plant—according to the present Act, it means the boiler room, engine or compressor room only. The pipe lines, condensers, pumps and motors outside of the plant proper are not the responsibility of the operating engineer. In most cases, this is a question for internal management and, in such cases, the problem of maintenance is an additional one, calling for additional staff. Thus the main responsibility of the chief or shift engineer is the operation of the power plant. If additional duties of maintenance are assigned to him outside of the boiler or engine room, as is often the case in a hospital, then a shift engineer of one grade lower than the normal shift engineer must be present and in charge of all power plant equipment, provided the chief engineer is still in the immediate proximity of the power plant and is only absent on matters pertaining to the plant.

There has been considerable speculation at times relating to the cancellation or suspension of a certificate. We do not take this action in a casual manner but investigate and make recommendations to the Minister. Generally only negligence, incompetence, drunkeness, false pretences or fraud would be reasons under which such recommendations would be made. Of course, we expect the engineer in the field to assist by reporting infractions or conditions alien to safety, but often conditions are such that the engineer is compelled to work in violation, despite the fact that he does not wish to do so. These are circumstances beyond his control but if there is an element of danger, then these conditions should be reported to the board.

There will always be violations but we have succeeded in attaining a new respect based on good will for the Operating Engineers Act, 1953, and with the help of the engineers in the field, will maintain that respect in the future. ■

Can This be Cured?

Two interns strolled out for a breath of air one rainy afternoon. As they walked their attention was drawn to an Old Boy just ahead of them because he was walking in a most peculiar way—with a shuffling gait.

"What do you think is his trouble?" said No. 1 intern.

"Arthritis," said No. 2 intern. "What do you think?"

"A double hernia", said No. 1.

By this time the interns were walking beside the Old Boy so they asked him which diagnosis was right.

"You are both wrong," said the Old Boy. "It's loose rubbers!"

—*The Sheet.*

With the Auxiliaries

Open Homes and Gardens Project

The 18th annual homes and gardens visit organized by the ladies' auxiliary of Royal Edward Laurentian Hospital, Montreal, Quebec, took place this year on May 17. This visit is limited to 800 people and constitutes the prinicpal source of revenue for this auxiliary. Tickets are sold for $5.00 each.

N.B. Activities

A very successful month at the Gift Shop was recently reported by the Hotel Dieu Hospital Aid, Chatham, N.B., and a cheque for $200 was presented to the Rev. Sister Superior. The ways and means convenor also reported gratifying returns from a concert put on by a group from St. Patrick's Dramatic Society of Nelson. Another member also reported 198 sheets made for Mt. St. Joseph Hospital during the last two months.

Junior Members

Unique in hospital auxiliaries is the Welland Junior Hospital Auxiliary, specifically formed to interest girls in their teens. The purpose of the group originally was to make favours for patients' trays at holiday times during the year, buy baby bracelets for each new born baby, help the senior auxiliary sell tickets for their annual penny sale and tag days, and to hold a Christmas tea to raise funds for their own projects. Now, after a recent membership drive, members total over 70. They plan in the fall to take a Red Cross Nursing course in order to assist at the hospital with light nursing duties where they can be usefully placed as volunteers.

B.C. Auxiliary Work

In observance of National Hospital Week and the anniversary of the birthdate of Florence Nightingale, May 11 was the date for the repeat of a very successful evening coffee party and curio display held by the auxiliary members of the McBride and District Hospital, McBride, B.C. Many items of interest in the homes of the district residents are loaned for the display. These ladies have also authorized purchase of a new oxygen tent, tea towels for the hospital kitchen and linen for making bedside table covers.

Picture Raffle

Needlepoint pictures donated to the Women's Hospital Auxiliary of Strathroy General Hospital, Strathroy, Ontario, will be used to boost the hospital building fund. The auxiliary sold tickets at $1.00 on the pictures and the draw was held in May.

Volunteers Honoured

Jewelled pins were awarded to 12 volunteers of the New Mount Sinai Hospital women's auxiliary for serving more than 1,000 hours in the hospital in the past five years. The president also announced at the recent ceremony that two annual nurse bursaries had been presented.

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Amid the busy bustle of the workaday grind,
there is nothing quite so welcome
as the quick refreshment and lift in ice-cold Coca-Cola.

With the Auxiliaries

(concluded from page 88)

Successful money-raising ventures for this auxiliary have been baby photography, hospital donation cards, the gala Bal d'or, the gift shop and a new project, the snack bar.

New Affiliates

Three new affiliates have been welcomed into the Women's Hospital Auxiliaries of Ontario. They are the Sault Ste. Marie General Hospital Women's Auxiliary, the Milton District Hospital Women's Auxiliary, and the Pembroke General Hospital Women's Auxiliary.

Coffee Service

The women's auxiliary of the Metropolitan Hospital, Windsor, Ontario, has received permission from the board to install vending machines to serve coffee, biscuits, and cigarettes in the waiting-room of the ambulance entrance.

At Northwestern General

The women's auxiliary at Northwestern General Hospital, Toronto, Ontario, has pledged $5,000 and has already presented $3,500 for air-conditioning units in the delivery and recovery rooms.

Hat Parade

All active auxiliary members of St. Joseph's Hospital, Guelph, Ontario, took part in the group's latest project in April—a euchre and bridge party held in the nurses' residence auditorium. Highlighting the project was a spring bonnet parade and a skit depicting bygone days.

Projects in New Brunswick

The auxiliary of the Sackville Memorial Hospital, Sackville, plan to provide furnishings for the nurses' residence including drapes and furniture in the coming year. In addition to these plans which will be attended to after repairs have been completed on the residence, this auxiliary will conduct another annual drive for jams and jellies.

Three Auxiliaries Aid Hospital

There are three auxiliaries to Welland County General Hospital—Welland, Crowland and Fonthill. These women played a large part in raising the money to build the new addition to the hospital which opened in March. They began by canvassing for votes before the debenture was issued, then spent hours filling out pledge cards for pay roll deductions, canvassed merchants, businesses and households door-to-door. Over $900,000 was raised in the civic campaign and over and above this, Welland auxiliary donated $7,500 for a coffee shop, Crowland auxiliary $1,000 for a gift shop and Fonthill $5,000 for a chapel.

Drive by C.M.H.A.

The Canadian Mental Health Association's drive to win new friends for the mentally ill was given the enthusiastic endorsement and support of the nation's leaders. This drive, developed in each area by provincial divisions and local branches, will be backed by extensive nation-wide public information programs. The Canadian Broadcasting Corporation's national television network will carry a weekly discussion about community mental health for six weeks on the popular day-time show *"Open House"*. The CBC radio web also plans a number of assists and most leading national weeklies and journals have given writers assignments for articles on mental health.

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This widely acclaimed concept of construction eliminates most common furniture failings—practically eliminates maintenance and increases life.

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60-9

A.C.H.A. Activities

Study for adminstration should be based on broad training in the liberal arts, according to W. Allen Wallis, Dean of the Graduate School of Business, University of Chicago.

Speaking at the annual Administrators' Luncheon, a regular College-sponsored function of the Tri-State Hospital Assembly, Dean Wallis defined this education as training in the sciences, philosophy, history, government, literature and mathematics. Citing the vast changes that have taken place in our economy in the past 40 years, Dean Wallis said, "It's really hopeless to think that we're going to teach them (future administrators) what they'll need to know, since nobody now knows precisely what that will be.

"The only hope is that they'll be able to keep on learning for the next 40 years.

"Our aim in the academic institutions in teaching of administration is to prepare for life-long learning."

The luncheon was attended by some 250 members and guests of the College.

The College has a new Regent in Region Two, the state of New York. He is Peter Terenzio, director and executive vice-president of the Roosevelt Hospital in New York city, whose election as Regent was announced this month by Dean Conley, executive director of the ACHA.

Mr. Conley said that Mr. Terenzio will fill a vacancy created by the resignation of J. Russell Clark, former executive director of The Brooklyn Hospital, who is now a hospital consultant.

The 26th Convocation Ceremony of the College will be held in the Masonic Temple in San Francisco and the annual banquet, which follows the convocation, will be held in the Fairmont Hotel. The date of these two major affairs of the College which take place during the annual meeting in conjunction with the convention of the American Hospital Association is Sunday, August 28th.

Dietetic Institute

A special dietetic institute was held at the Royal York Hotel, Toronto, Ont., from April 25 to 27. The institute was co-sponsored by the Ontario Dietetic Association and the Ontario Hospital Association. Its object was to improve dietetic services in hospitals through sound administrative practices. Delegates attended the institute from all parts of Ontario and participated in several discussions on dietetic administration. Cost accounting, principles of purchasing, kitchen planning and equipment were among the subjects discussed.

Miss Winifred W. Eliason, president, Greenfield Mills Restaurant Co., Birmingham, Michigan, in speaking at the institute pointed out that high quality food was never produced from poor ingredients and she stressed the need for making sure that specifications are followed and that all deliveries are inspected.

Water Safety Week

Red Cross National Water Safety Week is June 19-25. If you find yourself swimming in a current, don't struggle against it. You'll exhaust yourself. Swim *with* the current, and at the same time diagonally towards the shore.

"It's so nice to know they've never been used by other patients!"

That's what patients tell us. "Where else does it make more sense to use single-service Dixie Cups and Plates than in a hospital? There's no question about their cleanliness, and they're so attractive, too! What a wonderful idea." From the administrative side: Trays are lighter, easier to carry. Meals are served faster. There's far less dishwashing. Often costs less than conventional service. Every day more hospitals change to this attractive DIXIE MATCHED FOOD SERVICE!

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Here and There

Hospital Building in Britain

A vast program of hospital building and extension is under way in England and Wales, aiming at increasing accommodation and improving efficiency, appearance and atmosphere. The program is a continuation and expansion of the one announced first in 1955.

One hundred and fifty-seven major hospital projects are planned, including 33 new ones. Included, too, will be Britain's first medical nuclear physics centre which will have at first 86 beds for cancer patients.

Many out-patient departments have been built and psychiatric units are being added to several general hospitals. In future, too, hospitals will take on the function of keeping as many people as possible out of their wards. Because of out-patient departments, physiotherapy units, psychiatric units and so on, many patients may not have to enter the hospital ward. In some out-patient departments there are day wards with about 20 beds. Here certain forms of treatment and minor operations will be carried out within the day, allowing the patient time to rest before he is taken home where he will probably be seen later by a health visitor.

In the new out-patient departments there will be small bays, for only a few people, near each consultant's room—both consultation and examination will take place in the room.

Much planning has gone into wards for the longer-stay patients too. At present, a design is preferred which places groups of four or six patients on either side of a central unit comprising service rooms, kitchen, bathrooms, stores, et cetera. Serious attention is also being given to the elimination of noise. And tasteful decorating is lessening the institutional appearance of hospitals. — *Wendy Hall, Courtesy U.K. Information Service.*

X-Ray Technicians for South-East Asia

A training centre for x-ray technicians from various countries in south-east Asia is to be set up in Ceylon with the co-operation of the government of Ceylon and WHO.

The centre will be located at the School of Radiography, General Hospital, Colombo, which already offers a training course in radiography and radiotherapy. It will give an additional course in the maintenance and servicing of x-ray equipment and other apparatus of this type.

At least five fellowships a year will be provided by WHO to enable students from countries outside Ceylon to attend the course. They will also provide an expert electrotechnician for at least two years as well as some equipment and supplies.—*WHO Chronicle.*

Local Authority Services in Britain

The increase in the proportion of old people in the nation accounts for much of the work of home nurses and home helps at the present time. Before 1948, the services of these people were mainly confined to maternity and child welfare cases. However, during 1958, home nurses made 24 million visits in England and Wales, as compared with 17 million in 1948; and 45,000 full-time or

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part-time home helps were employed in England and Wales (6,000 in Scotland) in 1958, as against 11,500 (2,500 in Scotland) ten years before. The supply of home nurses and home helps, together with a variety of other facilities such as night attendance services or the loan of nursing equipment or the provision of prepared meals have done much to keep frail old people and invalids of all ages in the familiar surroundings of their homes.

One of the largest expansions of local health authorities' responsibilities has been in the provision of services to people not actually ill but labouring under mental or physical handicaps. Before 1948 this kind of work was not generally done by local health authorities, except for the blind. In conjunction with voluntary organizations, and with the hospital service, there is great activity in the provision of, for example, "sheltered" workshops for disabled people whose working capacity is limited, instruction for the house-bound, and clubs for the deaf and hard-of-hearing.—*United Kingdom Information Service.*

New Anaesthetic Apparatus

A new type of anaesthetic inhaler apparatus, developed by the Nuffield Department of Anaesthetics at Oxford University, England, is making possible the use of anaesthetics in lonely villages far from hospitals. It does not depend on cylinders of gases for operation — the anaesthetic mixture is administered with air alone. This is a boon in countries where cylinders of oxygen and nitrous oxide are not available or easily transportable or where the price of these gases makes their routine use impossible.

Because the inhaler is portable and comparatively simple to use (it does not require an experienced anaesthetist), it was originally developed for military use. A hand operated control tap governs the percentage of ether vapour which is administered to the patient. An automatic thermo-compensator is used to ensure that, for any one setting of the control tap, the strength of the vapour breathed in by the patient remains constant despite changes in temperature. This is achieved by a device consisting of a valve sensitive to temperature change. As the ether becomes warmer and the rate of evaporation is increased, the valve closes. As the ether cools owing to excessive evaporation, the valve opens to admit more air.—*Janet Wheaton, Courtesy U.K. Information Service.*

An open mind, like an open window, should be equipped with a screen to keep the bugs out.—*Journal of Phi Rho Sigma*

Canadian Hospital

The Canadian Hospital is published monthly by the Canadian Hospital Association as its official journal devoted to the hospital field across Canada.

The subscription rate in Canada, U.S.A., and Great Britain is $3.00 per year. The rate for each additional subscription to hospitals or organizations having a regular subscription (and personal subscription for individuals directly associated wth them) is $1.50 per year. The rate to other countries is $3.50 per year. Single copies when available, are supplied at 50c each.

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Please enter subscription to *The Canadian Hospital* for one year as indicated below.

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Payment enclosed $.....

Or, send invoice to .....

Nursing Assistants' Course
(concluded from page 68)

moral character; Grade nine certificate or its equivalent; and age 17-40 years.

Fulfilment of Need

Each year a number of students are turned away from schools of nursing because they do not possess the educational requirements or other necessary qualities. The availability of the Nursing Assistants' Course makes it possible for individuals to carry out nursing functions who otherwise would be prevented from doing so because of lack of educational qualifications.

In February of this year, the third class of Nursing Assistants graduated from our school and it is our hope that their dedicated service to the nursing field will be realized not only in our own hospital but wherever these nursing assistants may go. ■

Interviewing a prospective cook, the housewife discussed hours, days off, and finally wages. The domestic said firmly: "My wages will vary, Madam, depending on whether you expect me to peel or unfreeze."

Functions and Staffing
(concluded from page 38)

these standards during construction, we have a moral responsibility to see that our departments are staffed by skilled tradesmen properly licensed and trained to work in hospitals. The organization and training of the personnel required for specified jobs will, in any event, require a detailed study in each individual case.

Meanwhile, there is no secret formula to arrive at the optimum number of personnel. For example, the staff required in our hospital is as follows.

1. Chief engineer
2. Assistant engineer
3. Four shift engineers, second class
4. Third class engineers
5. Four maintenance engineers, third class
6. A master plumber and helper
7. A journeyman electrician and helper
8. Engineers' clerk and store keeper
9. A mechanical cleaner
10. An incinerator operator.

For a hospital of 700 beds, I feel that this is the minimum number of personnel needed to operate and maintain the plant.

The basic necessary equipment in an engineers' department is an office, desk and chairs, a filing cabinet, telephone, and some secretarial service. A complete set of plans and specifications, architectural, mechanical and electrical, will be required as well. A file should be prepared listing installed equipment and its location, including the name of the manufacturer and the necessary maintenance and parts manual. In addition a catalogue file should be kept.

Space should be provided for shops and storage of materials. Since tradesmen will have their own tools the hospital will supply large tools such as spanner and sockettes sets, special wrenches for boiler, manholes and handholes. A portable volt-meter, and ammeter and megger tester should be provided. As well, a work bench with vices and a drill press are essential to every work shop even in the smallest hospital.

A portable truck or shop on wheels is essential and these have proven their worth where used.

Requisitions

All work to be done should be by approved requisition so that con-

trol can be maintained of the work undertaken and material issued.

The portable truck visiting different sections of the hospital on a routine basis will pick up minor repairs if check lists are used and staff receive special instruction. The background of the maintenance men for this truck should be of one of the trades used in construction. A pleasant disposition and neat appearance are essential in this job and it should be mandatory to check with the nurse or department head in charge of each floor before starting to work.

The training of new employees should start with an orientation program, and if the hospital has developed a manual for new employees, this will be an advantage. The standing orders for each section of the engineers' department should be contained in a departmental manual. Duties and responsibilities and procedures to be followed should be written out in detail for ready reference by the new employee.

A log book where occurrences can be noted should be provided so that employees on shift work are kept informed of any changes that are made.

Communications

It is important that good communications be maintained between the engineer and his employees and the superintendent or administrator. The sum total of the efforts of all departments in the hospital contribute to the standard of patient care in every hospital. The engineer, while in the background, plays a vital rôle which in many instances is only appreciated by the administration.

The form of reporting will vary in almost every hospital from daily verbal reports to lengthy written reports, using graphs and charts to substantiate statements included in the report. The engineer has an important task to do in this area in establishing confidence with his administrator. He should be the first one to keep the administrator informed on the working condition of equipment under his care and on activities in his department.

In Mexico

Plans are being studied by the Mexican Hospital Association for the setting up of a university course in hospital administration which will probably last for 15 or 16 months. It is hoped that the course can be started this year. *—I.H.F. News Bulletin.*

Federal Grants

Construction

A grant amounting to $84,200 has been awarded to Hôpital Notre-Dame de Chartres, Maria, Quebec. Approximately $61,700 will be used to assist in construction which will provide 77 nurses' beds and training facilities. Accommodation will also be provided for 16 new patient beds and two interns' beds through a renovation of the quarters now occupied by the nursing staff.

The Western Hospital, Alberton, P.E.I. has been awarded a grant of $13,100. This grant is in addition to a recent grant of $81,400 and will be used to assist in covering the cost of renovations for segregation of maternity and paediatrics, improvement of nursing and dietary services and provision of necessary stand-by heating and fire protection systems.

To assist in the construction of new quarters to provide additional accommodation for 24 nurses, a grant of $18,000 has been made to Halifax Infirmary, Halifax, N.S.

The sum of $182,700 will be used to assist in a proposed construction and renovation program to Providence Hospital, Moose Jaw, Saskatchewan. In addition to increasing active treatment capacity from 154 to 162 beds, the project will provide for physiotherapy and occupational therapy areas and emergency out-patient treatment services which are not at present available in the existing building.

A grant of $15,000 has been made available to the Coquitlam Health Centre, Coquitlam, B.C. to assist in the construction of an office for the staff of the Simon Fraser Health Unit in the municipality of Coquitlam.

Toward the cost of providing living accommodation on the hospital premises for nurses, the Penetanguishene General Hospital, Penetanguishene, Ontario, will receive the sum of $8,000.

The construction of a new 45-bed paediatric wing and living quarters for seven interns at St. Joseph's Hospital, Sarnia, Ontario, will be assisted by a grant of $95,250.

To assist in the renovation of pavilion No. 1 of the Manitoba Sanatorium, Ninette, Man., a grant of $7,340 has been made. The open area portion of this pavilion is to be converted to an open ward hospital type building with common rooms for patients as well as a school room where a continuous teaching program will be carried out under the sanatorium rehabilitation program. At the same time extensive improvements will be made in the heating, plumbing and electrical systems.

Research

To assist in the development of research in dentistry at the University of Toronto, Ontario, a grant of $146,000 has been made. Since 1952 the division of dental research in the Faculty of Dentistry has been carrying on an extensive research program with financial support from the dental profession, corporations, foundations and private citizens. When the new dental building was opened in 1959, more adequate research quarters became available, and the grant will be used to pay for new scientific and technical equipment.

A $22,026 grant has been awarded to the Metropolitan Hospital Planning council for a study of hospital utilization in the Lower Mainland of British Columbia. Study headquarters will be at the University of B.C., and the study will be carried out on the basis of statistical data provided by the B.C. Hospital Insurance Service.

Diagnostic and Treatment Services

A grant of $25,600 has been made available for the establishment of a child guidance clinic at the Victoria Hospital, London, Ontario. The grant will be used to assist in setting up an out-patient clinic which will, under the administration of the Victoria Hospital, provide diagnostic and treatment services for emotionally disturbed children and also provide a consultative service to community agencies concerned with child care.

The Children's Foundation of Vancouver, B.C. is to receive a $7,200 grant to assist in the development of treatment services for emotionally disturbed children. Sponsored under the joint auspices of the social planning section of the Community Chest and Council and of the Canadian Association of Social Workers, the project will provide intensive individual psychotherapy for children aged six to 12 years and will serve the province of B.C.

Always behave like a duck — keep calm and unruffled on the surface but paddle like the devil underneath. —*Lord Brabazen*

Cat. No. 100-100 (illustrated), with 32 oz. irrigating bottle. Cat. No. 100-102, without irrigating bottle.

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The improved Sklar Electric Evacuator meets every demand for continuous, low grade suction and pressure. It may be regulated to meet the individual patient's requirements; thus, assuring maximum comfort and highly satisfactory clinical results. The Sklar Electric Evacuator is designed specifically for finely controlled, continuous suction and pressure in such procedures as: stomach evacuation, intestinal decompression, thoracic drainage, prostatectomy, gastric lavage, fistula drainage, and bladder irrigation. The versatility of this new model eliminates the need for highly specialized equipment. **No maintenance or lubrication required — guaranteed for two years.** Available through Sklar Surgical Supply Distributors. Send for descriptive literature and specifications.

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Business is a combination of war and sport.
—ANDRE MAUROIS.

Twenty Years Ago

From "Canadian Hospital", June, 1940.

Living in the Past

The other day one of our hospital friends in a midwestern state sent us still another illustration of the length to which blind and ignorant isolationists, who do not realize that the fate of American democracy is being settled to-day in France, will go to prevent the United States from defending the liberty that is the very foundation of that great nation. We were sent a list of 27 points illustrating British tyranny and misrule said to be quoted verbatim from the Declaration of Independence. It is apparent that the isolationists are being hard put indeed to prevent their country from giving tangible evidence that democracy is worth preserving.

* * *

Hospital Classic Goes into Second Edition

Practical evidence of the value and widespread popularity of Dr. M. T. MacEachern's classical work, "Hospital Organization and Management", has been provided in the announcement that a second edition of this book is now available. Mr. Neu, the publisher, tells us that he has had orders for this volume from all corners of the world.

* * *

Sales Tax Exemption

No further word has been received by the Canadian Hospital Council which would indicate whether or not the sales tax exemption now accorded to public hospitals will be jeopardized at the present session of parliament. During the past few weeks quite a number of hospital officials in various parts of Canada have explained the desirability of this exemption to the local members of the Federal House. It is advisable that all members of parliament should be thoroughly aware of the difficulties of our public hospitals and the necessity for preserving, if at all possible, this concession, in itself a recognition of their contribution to public welfare. However, in the absence of more definite information, it would not seem advisable to make too intensive an approach to the members of the Federal House. The Canadian Hospital Council has made a formal request to the government for favourable consideration of this exemption in any revisions contemplated.

Information Folder

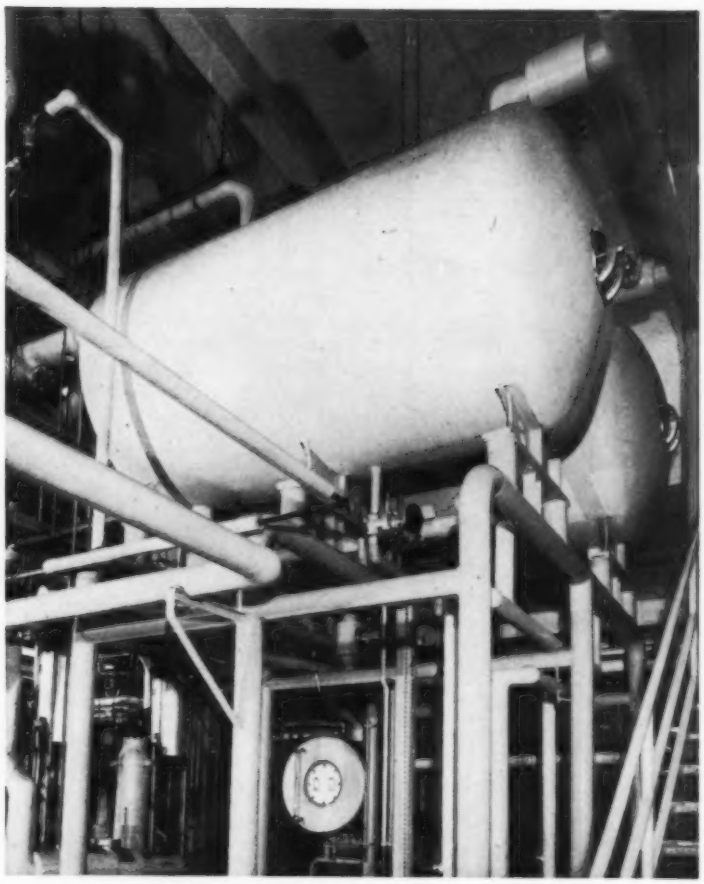
Information for patients and visitors in the Winnipeg General Hospital has been attractively set out in a compact information folder in blue type. It gives basic rules concerning admission and accommodation, financial arrangements, checking-out time and enquiries. It lists services available such as radio and TV sets, telephones, canteen service, library and beautician services given by the White Cross Guild with brief details about each. The folder also gives instruction as to noise, smoking, visiting hours, critically ill patients and visitor parking. In addition a plan of the hospital is given on the back of the folder.

C.T.A. 60th Annual Meeting

The annual meeting of the Canadian Tuberculosis Association will be held in Ottawa during the last week of this month. The Chateau Laurier will be head-quarters for the delegates. The continued interest and sympathy of Government House is shown by an invitation from His Excellency, George P. Vanier, to hold an anniversary session at Rideau Hall.

Hospital Consultants

20 YEARS WITHOUT REPAIRS



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Provincial Notes
(concluded from page 71)

ly $75,000. Grants from the provincial and federal governments are approximately $40,000. The provincial government has agreed to purchase $15,000 of the $30,000 worth of bonds recently issued by the Carrot River Union Hospital district, the other half being sold locally. The 72-foot extension to the south side of the hospital includes a new operating room, case room, labour room, nursery, x-ray, plus additional wards and waiting room. Architects are Portnall and Grolle, Regina.

The Saskatchewan Division of the Canadian Arthritis and Rheumatism Society will purchase $5,500 worth of physiotherapy equipment for nine hospitals throughout the province. The hospitals to receive the equipment are: Providence in Moose Jaw; Moose Jaw Union; Shaunavon Union; Swift Current Union; Notre Dame, North Battleford; Victoria Union, Prince Albert; Holy Family, Prince Albert; St. Paul's, Saskatoon; and Wilkie Union.

Alberta

The nurses' residence of the St. Joseph's General Hospital, Vegreville, was officially opened at the beginning of May.

Government and local board approval has been obtained for a plan to have a major addition built onto the Fairview Municipal Hospital, Fairview. Provincial officials have approved an expenditure of $136,000. Features of the building program will be a large-scale renovation of the existing hospital building, and two additions to the structure. Architects are still working on final details of alterations. The project, which is expected to start this summer, would increase the bed capacity of the hospital to 49.

Calgary City Council has set aside 21 acres in southwest Calgary for future hospital development and ordered city commissioners to begin planning for a 700-bed hospital.

British Columbia

The new 36-bed hospital at Burns Lake is expected to be opened officially early in July. The hospital is a single storey frame building, in the form of a modified "T", built on a reinforced concrete slab with basement areas. Costing an esti-

mated $432,000 the hospital will provide a full range of general services including an emergency area, operating rooms and diagnostic facilities. Architects are Birley and Wagg, Victoria. The Burns Lake Hospital will receive a payment of $9,935.96 as part of the estimated grant of $216,000.

The new 85-bed Kitimat General Hospital, Kitimat, which was opened in March, will receive a payment of $18,064.91. Provincial government grants to this hospital will total over $1,272,000.

The Mission Memorial Hospital Society of Mission City has been given approval by the provincial government to present a money bylaw to two local municipalities, in order to finance the community's share of a proposed 54-bed hospital. Present plans call for the construction of a two storey reinforced concrete structure, with provision for future expansion to a maximum of 104 beds. The building will replace the existing hospital which was built in 1924 with a wing added in 1948. The architects are Townley and Matheson of Vancouver.

A public information campaign to find a happy medium of visiting hours to suit patients and staff of the Kootenay Lake General Hospital, Nelson, is now being conducted.

Schematic drawings of a 48,000-square-foot addition to the Children's Hospital are being studied by hospital and government officials. Architects Gardiner, Thornton, Gathe and Associates have proposed a new wing, running north and south behind the present building, which would house emergency, admitting and enlarged x-ray departments, kitchen and dining room, laboratory, and dental surgery departments.

Chemotherapy after Discharge

As sanatorium treatment of tuberculosis has come to be of shorter and shorter duration, the period of time for which chemotherapy is prescribed after discharge not only becomes longer and longer, but also of increasing importance in preventing relapse. Such a situation existed to a more marked degree in 1959 than ever before, and the greatest efforts were made to ensure that all patients continued to take chemotherapy for a carefully defined period of time when they went home. — *Toronto Hospital Annual Report.*

Classified Advertising

Advertisements for insertion should be mailed to Canadian Hospital, 25 Imperial St., Toronto 7, Ontario. Rates for classified advertisements are as follows:

$3.75 per column inch or fraction thereof, minimum charge $3.75. Display advertisements, set in a box, may be requested on advertisements of 2 inches or larger at no additional charge. ¼ page display advertisement — $25.00. Advertisements must be received by the first of the month to appear in that month's issue.

Director of Nursing and Assistant to Administrator

Here is an opportunity for a qualified nursing administrator to widen her field into full administration in hospital in small town.

Studies under way for expansion of services and rebuilding.

60 bed hospital serving 12,000 area Central Ontario.

In application give experience, salary requirements and date of commencement, in confidence to the Secretary of the Board, Willett Hospital, Paris, Ontario.

Medical Records Librarian Required

Registered or certified Medical Records Librarian required for busy 110 bed general hospital in Alberta's rapidly developing Peace River area. Duties to include establishing medical records department in keeping with Accreditation Standards. Apply for full particulars to Administrator, Grande Prairie Municipal Hospital, Grande Prairie, Alberta.

Position Required

Administrator or Business Manager. Good hospital experience, middle aged, conscientious. Please write to Box No. 534 M, Canadian Hospital, 25 Imperial Street, Toronto 7, Ontario.

DIRECTOR OF VOLUNTEERS

Required
For organization and direction
of
An extensive volunteer programme
in
Large general hospital

Apply: Miss Edith Young,
Assistant Administrator,
Ottawa Civic Hospital,
Ottawa 3, Ontario.

Executive Director Required

We require an Executive Director with the following qualifications: a person with a Master's degree in hospital or in medical care administration. We operate a medical health plan and also two small hospitals.

Salary: $10,000 to $12,000 per annum, depending on qualifications and experience.

Apply in writing, giving full details to: Mr. Gordon Waldmo, Secretary, Board of Trustees, Hudson Bay Mining Employees' Health Association, P.O. Box 160, Flin Flon, Manitoba.

PHARMACIST

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Opportunity
For advancement to
Hospital Administration Field
Accredited 106 bed hospital

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Administrator

Norfolk General Hospital
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Research Dietitian

Research Dietitian, half-time or full-time, for Metabolic Ward, Hospital for Sick Children, Toronto. Provision for half-time appointments is to accommodate applicants for M.A. training in Household Science, University of Toronto. Please apply to the Director, Research Institute, Hospital for Sick Children, Toronto.

Registered Medical Record Librarian

wanted, to supervise department in 160 bed hospital. Please apply to Administrator, Kirkland and District Hospital, Kirkland Lake, Ontario.

APPLICATION

Owing to the retirement of its present Executive Administrator, the Queen Elizabeth Hospital of Montreal is receiving applications for the position.

Since 1958 the Queen Elizabeth Hospital has been engaged in a $6,000.000.00 construction program involving a new wing, a new Nurses' Residence, and the complete renovation, and modernization of its present Hospital.

When this program is completed, the Queen Elizabeth will be a completely, modern up-to-date hospital of approximately 275 beds, or more than double the number of beds of the present Hospital.

Applicant will please reply in writing, stating age, experience, present salary, as well as business, hospital and character references.

Replies should be addressed to:

Mr. C. E. Dalziel,
Queen Elizabeth Hospital of Montreal
2100 Marlowe Avenue,
Montreal 28, Quebec.

EDUCATIONAL DIRECTOR

New school building, new student residence. Hospital opened in 1956, all services; 250 beds. Present plan to enrol first class of students for September 1961. Director required for September 1960 to facilitate planning an educational program and arranging for staff. Opportunities for additional education at Laurentian University.

Salary according to qualifications and experience. Apply to Director of Nursing,

SUDBURY MEMORIAL HOSPITAL
Sudbury, Ontario.

Classified Advertising

Director of Nursing

Modern Hospital with 42 adult beds and 11 bassinets has vacancy for Director of Nursing.

The hospital is located in a company operated town and serves a population of approximately 6,000. Community organized recreation. Residence accommodation and all conventional benefits available. Salary commensurate with experience and qualifications. Apply giving full particulars of training and experience to:

Administrator,
Anson General Hospital
Iroquois Falls, Ontario.

Accountant

Experienced accountant to work for organization which gives assistance in statement interpretation and systems design for hospitals in western mountain state, U.S.A.

Travel involved. Salary commensurate with qualifications.

Send full information on experience and personal background to: Box 523 H, Canadian Hospital, 25 Imperial Street, Toronto 7, Ontario.

Science Instructor Required

for the Moncton Hospital School of Nursing which has a yearly enrollment of 40 students.

Salary based on qualifications, 40-hour week, good personnel policies, apply to Director of Nursing, The Moncton Hospital, Moncton, N.B.

General Duty Nurses Wanted

For 30 bed hospital, reply stating experience and salary expected. Starting immediately. Reply to Secretary, Englehart and District Hospital Board, Englehart, Ont.

University Hospital

at

Saskatoon, Saskatchewan

now has vacancies for

Occupational Therapists

in Rehabilitation and Psychiatric areas. New 535 bed progressive teaching hospital. Departments offer additional training under medical supervision in all fields. Salary $305 to $455 depending on qualifications and experience. Benefits include three weeks annual holiday with pay and three weeks sick leave per year. Applications should be directed to the Personnel Office.

Think—Don't Sink

It's easy to understand how those classed as non-swimmers can get themselves into trouble in the water — but statistics show that many so-called "good" swimmers drown as well. Your Red Cross reminds you that ignorance causes most drownings, and out of ignorance comes your worse enemy — panic. Think this summer! Don't sink!

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$3,900 - $4,560

Candidates must be graduate nurses and registered in a province of Canada, must possess a certificate of a completed course of recognized standing in operating room techniques and have several years of experience (some supervisory) in an operating room.

For details, write to

CIVIL SERVICE COMMISSION, OTTAWA

Please ask for Circular 60-820.

. . . Across the Desk

News Released by Hospital Supply Houses

By C.A.E.

Research On High Blood Pressure Wins Award And Honorarium

Dr. Floyd R. Skelton, of the Louisiana State University School of Medicine, New Orleans, has been awarded the fourth annual Experimental Pathology award for meritorious research by an investigator under 40 years of age.

The award and a $1,000 honorarium, contributed by Parke, Davis & Company, were announced by the American Society for Experimental Pathology at its annual meeting in Chicago.

Dr. Skelton, associate professor of pathology at LSU and director of the Urban Maes Research Foundation in New Orleans, received the award for his studies on the role of endocrines in the development of hypertensive vascular disease, with particular emphasis on the part played by the adrenal glands.

Dr. Skelton was born in Ontario, in 1923, and received his education at the University of Western Ontario and the University of Montreal. He has held posts in the U.S. since 1952, at the University of Kansas School of Medicine, Medical College of Georgia, and in New Orleans.

Fisher & Burpe Announces Directors And Officers

New directors and officers of the Fisher & Burpe division of American Hospital Supply Corporation (Canada) Limited, were announced recently by Thomas G. Murdough, president.

The firm recently became a wholly owned subsidiary of American Hospital Supply Corporation of Evanston, Illinois, the world's largest manufacturer and distributor of health equipment and supplies.

Directors, in addition to Mr. Murdough, are Foster G. McGaw, founder and chairman of the parent corporation; Harry K. DeWitt, president of the parent firm's hospital supply division; Charles F. Hough, secretary of the parent company; Fred A. Lewis; Robert A. Davies, and W. R. Dewson.

The directors elected Mr. Lewis executive vice-president and general manager. Mr. Davies is corporate secretary.

Other officers elected are Lucien LeChasseur, vice-president and Montreal regional manager, and Mr. Dewson, vice-president and Toronto regional manager. Other regional managers are R. A. Puls, Winnipeg; R. J. Baker, Edmonton, and H. C. Day, Vancouver.

T. G. Murdough

Fisher & Burpe became affiliated with American Hospital Supply Corporation in 1959. Its network of sales and distribution centers provides service to hospitals throughout the Dominion.

Of the operating officers, all except Mr. Murdough have been sales and management men for Fisher & Burpe for several years.

Canlab Merged With American Hospital Supply Corp.

In a joint announcement by Hugh B. Ball, president of Canadian Laboratory Supplies Limited (Canlab) of Toronto and Montreal, and by Foster G. McGaw, chairman, and Thomas G. Murdough, president, of American Hospital Supply Corporation of Evanston, Illinois, it was disclosed that negotiations have been completed by which the operations of the business of these companies will be merged.

All the shareholders of "Canlab" have agreed to an exchange of stock with "American" subject to fulfilment of all legal prerequisites for the consummation of such a merger.

It is contemplated that the management and all the personnel of Canlab will be retained, spokesmen say.

Canlab sells products of leading Canadian and world manufacturers to laboratories throughout Canada through a national force of sales specialists working out of Canlab's main centres in Toronto and Montreal, and sales offices and outlets in Ottawa, Winnipeg and Edmonton.

Cotton Cellular Blankets Proving Popular

Smith & Nephew Limited are offering hospitals a new cotton cellular blanket called "Cellolite" which provides a useful weapon in the fight against cross-infection.

The weaving specification of "Cellolite" Blankets is designed to give maximum warmth and comfort with minimum weight, and at the same time withstand the strain of repeated laundering.

It has been noted that the thermal efficiency of "Cellolite" improves with laundering whilst retaining its soft texture for maximum comfort.

A one-inch binding tape is added to the ends of each blanket for additional strength and stability. "Cellolite" Blankets are supplied in individual polythene wrap and ten units to a shipping carton.

The hospital name can be imprinted with indelible washable ink at a small additional cost.

For prices and details write to Smith & Nephew Limited, 5640 Pare Street, Montreal 9, Quebec.

(continued on page 112)

...christening coming up!

Parents choose their baby's name with care. Physicians take much more care in prescribing the feeding formula.

Only the name "Farmer's Wife" gives the doctor a choice of *five* specialized milks . . . a helpful factor in finding the most suitable formula for each infant.

Farmer's Wife

CANADA'S PREMIUM INFANT FORMULA MILKS

With Vitamin D

Whole Milk
Partly Skimmed Milk
Skimmed Milk

With Vitamin C and D

Instant Prepared Formula
(Whole Milk)
Instant Prepared Formula
(Partly Skimmed)

Easily and quickly prepared. Available in 1 lb. tins especially designed for convenient opening.

0003

Across the Desk
(continued from page 110)

Pressure Sensitive Labels For Laboratories

Of considerable interest to hospitals is a method of recording pathological tests which has been evolved by Firman Des Loge Hospital and Glennon Memorial Hospital of St. Louis, Missouri.

These hospitals formerly used a printed form, several pages long, covering all the tests that could be done. Since no one patient required all the tests the forms were needlessly bulky and expensive.

They now use a series of 22 different forms, each of which covers a specific test. The forms are printed on pressure-sensitive "Kum-Kleen" paper manufactured by Avery Adhesive Label Company. The pressure-sensitive side of the label is protected by a backing paper.

The paper forms are now selected for a given patient and forms, with his name enscribed on them, are provided along with specimens to the appropriate laboratory.

The completed forms are returned to the hospital's record centre. There the backing paper is peeled off and the form is affixed to a master test record sheet, set up for the patient. It now becomes part of the hospital's permanent records, easily filed for future use.

Further particulars available from Avery Adhesive Label Company, 48 Haas Road, Rexdale, Ontario.

R.C.A. Victor Appointments For Keleket Sales

RCA Victor Company, Ltd., Technical Products Service Department, distributors of Keleket X-Ray equipment in Canada, announces the appointment of James G. Williams as sales representative for the Maritimes.

J. G. Williams

Mr. Williams is a native of Fredericton, N.B., and has been chief radiological technician at the Victoria Public Hospital in that city for the last year and one half. Before that he had three years' experience in the X-Ray field as radiological technician at the City Hospital, Moncton, N.B.

Appointment of Douglas J. Keating as sales representative for Keleket equipment at the Vancouver office is also announced by RCA Victor.

Mr. Keating has had many years of experience as both a medical and industrial radiographer, and was a founder of the B.C. Radiological Technicians' Association.

He will work with A. D. Barrett, Manager of Keleket equipment sales in R.C.A. Victor's Vancouver office at 2876 Rupert Street.

Stafford Foods Limited Expanding Services in East

Stafford Foods Limited has opened a branch office in Moncton, N.B., following the company's policy of broadening its service to the food industry.

John H. Stafford, president, announces that G. H. Belliveau has been appointed manager of the new Moncton branch. Paul LeBlanc is Moncton representative, bulk division, and C. E. Mann Halifax representative, bulk division.

Mr. Stafford states that these men have served the industry for many years and their wide knowledge in the field will lend further strength to the Stafford Foods staff in providing efficient coast to coast service to the food industry.

G. H. Belliveau

The new Moncton branch, which is located at 31 Harris Avenue in that city, brings to seven the number of branches the company is now operating across Canada. Other branches are located in Toronto, Montreal, Winnipeg, Calgary, Edmonton and Vancouver.

(concluded on page 114)

McKemco Annual Sales Clinic Held in Toronto

McKague Chemical Company Limited and McKague Chemicals (Eastern) Limited, held their annual sales clinic recently at the Prince George Hotel in Toronto. During the five-day meetings, the salesmen were congratulated on having made 1959 the most successful year in the company's history, and were brought up-to-date on new product developments and applications. Thirty-three "McKemco Men" participated.

During the clinic two McKemco men were appointed senior salesmen. In the photograph above they are, from left to right, Bruce Walker and Ron Lefebvre.

IT'S

NAPANEE SERVICE

THAT COUNTS

Napanee interest does not end with the sale of a boiler. Continuing service of as high a standard as the original workmanship is backed by the famous Napanee guarantee.

Automatic startup, instruction of operating personnel, the Napanee service contract are all designed to ensure your confidence. A fleet of service station-wagons, manned by highly trained crews, is at your beck and call, 24 hours a day, seven days a week.

No boiler problem is too great or too small for a Napanee service representative.

Napanee boilers are completely Canadian—built in Canada by Canadians, with "built-in" Canadian service. Insist on Napanee.

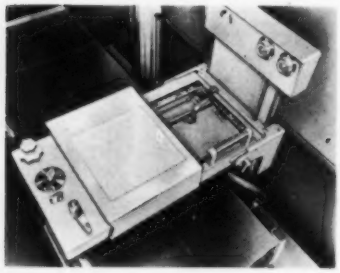
BUY CANADIAN

NAPANEE IRON WORKS LTD.

NAPANEE, ONTARIO

A SUBSIDIARY OF INTERNATIONAL EQUIPMENT CO., LTD.

Across the Desk
(concluded from page 112)



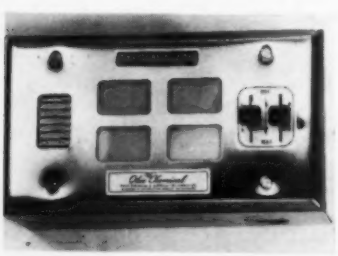
General Electric X-Ray Spot Film Unit

This new spot film unit is being heralded as a significant automation milestone by the X-Ray Department of the General Electric Company, Milwaukee, Wisconsin. The spot film unit is available with cassette transfer, phototiming and film sequencing. Sales offices are located throughout Canada.

Ohio Introduces Central Piping Alarm Systems

Ohio Chemical & Surgical Equipment Company (a Division of Air Reduction Company, Incorporated), Madison 10, Wisconsin, now offers a most complete line of central piping alarm systems. New and modernized systems are available for hospital oxygen and nitrous-oxide pipelines. They may be installed in existing hospitals or those still in the planning stage.

New combination alarm panels incorporate both audible and visual warning signals. All of Ohio's alarm systems meet N.F.P.A. requirements. One of the most recently developed systems combines "Operating" and "Emergency" warning devices. The "Operating" warning signal indicates when switch-over occurs from the in-service to reserve supply of oxygen or nitrous-oxide. The "Emergency"



signals indicate an abnormally high or low line pressure. A "Normal" light is part of every Ohio alarm panel. It remains lighted to assure hospital personnel that the pipeline is functioning properly.

Several types of auxiliary alarm panels are available to meet specific requirements, since each pipeline installation is custom-designed for the individual hospital. Switches in each alarm panel permit testing of the warning signal components.

For complete information on Ohio Chemical piping alarm systems please write directly to Ohio Chemical Canada Limited, 180 Duke Street, Toronto, requesting Form No. 4677 D9-12.

Dixie Cup Holderettes Glow In X-Ray Rooms

Paper cup "holderettes" that glow in the dark, for use in hospital x-ray rooms, have been put on the market by The Dixie Cup Company (Canada) Limited, Brampton, Ontario.

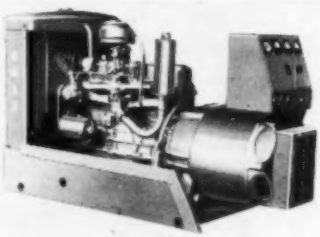
The plastic "holderettes" snap on 14-ounce cups. When the cup is disposed of, the "holderettes" are reused. Dixie Cup is recommending them particularly for the use of barium, which it says may be premixed and stored by the hospital in paper cups.

When doses are needed, the premixed filled cups can be taken out of storage and the "holderettes" snapped on so that the barium can be located promptly in the dark.

Onan Gasoline Electric Plants Equipped With Generator

The new Onan Magneciter Generator, specially developed by D. W. Onan & Sons Inc., for use with their own line of engine generator sets, will now be installed as standard equipment on all 25KW gasoline driven electric plants, according to the manufacturer.

Formerly available only on larger units, the generator is now standard on all gasoline and Diesel plants 25KW and, larger. This new Magneciter generator with static exciter and voltage regulator will provide more efficient performance in both primary and standby applications.



For further information on series 25EC electric plants, and the new Magneciter generator, write the manufacturer, D. W. Onan & Sons Inc., Minneapolis 14, Minnesota.

Newly Designed Beatty Deep Fat Fryer

Designed for greater production, this new Beatty deep fat fryer, rated at 9.0 K.W., will produce as many french fried potatoes as two 4.5 K.W. fryers. It is only 16" wide and matches in depth the present 23½" No. 2 series Beatty counter cooking equipment.

It is recommended for use where quick service is required and where present 4.5 kw. to 5 kw. fryers are too slow due to overloading.

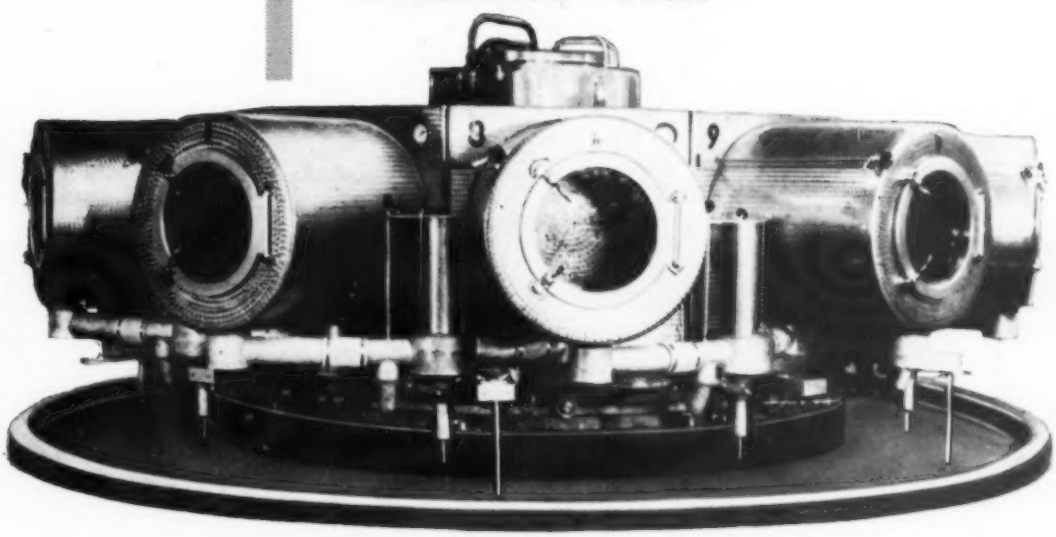
This fryer is also available as a complete free standing frying unit which includes enclosed cabinet base with special drain off tank and filter to be known as Model DF16-2F.

Production of up to 45 lbs. of raw potatoes cooked per hour can be obtained. This is equivalent to the browning of 200 lbs. of blanched potatoes per hour.

Literature is available from the manufacturers, The James Stewart Manufacturing Company Limited, Penetanguishene, Ontario.

THE WASHROOM which thinks for itself

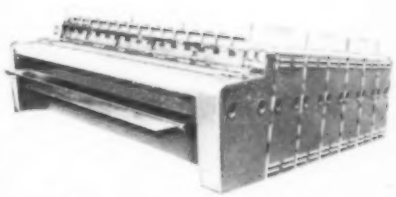
THE CAROUSEL CONTRA FLOW WASHING UNIT



Have you heard of this wonderful new washing unit which literally "Thinks for itself". Consisting of 10 individual washers, this unit receives soiled linen—processes it through the various stages of washing, boiling, bleaching, rinsing and delivers the clean linen to the same station where it was originally loaded.

EXCLUSIVE FEATURES:

- COMPLETELY AUTOMATIC
- LOW WATER CONSUMPTION
- EXCEPTIONAL SAVINGS IN STEAM
- REDUCED CONSUMPTION OF SUPPLIES
- ONE LOADING AND UNLOADING STATION



Model "D" Suction Ironer Available in sizes from 2 roll to 6 roll inclusive. Spreader and folder also available for use with this unit.

Complete Consulting and Engineering Service Available to you without Obligation.

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BRAMPTON, CANADA

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